

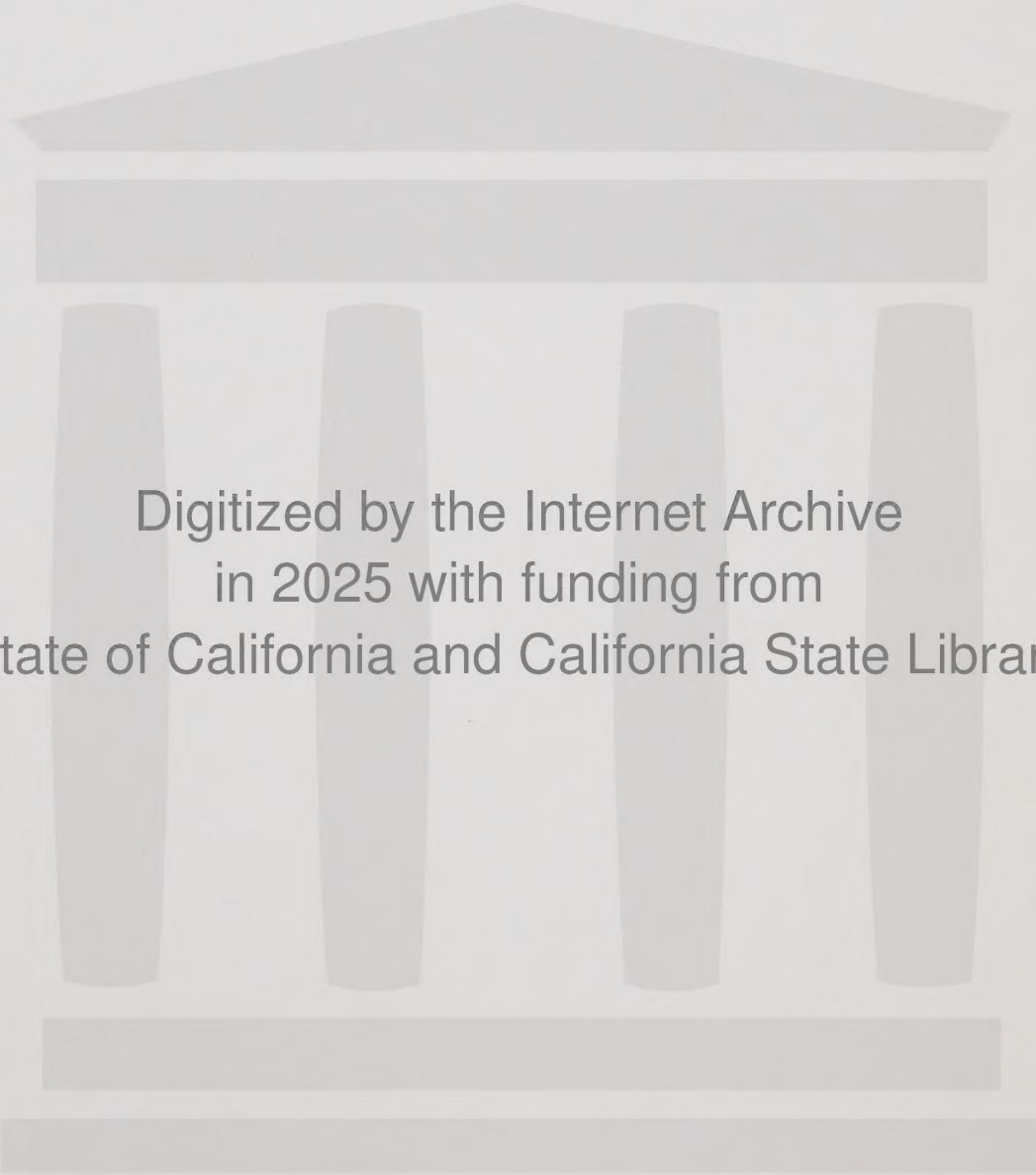


# **RECONNAISSANCE REPORT**

## **El Dorado County 2010 General Plan**

Sedway Cooke Associates

Economic and Planning Systems  
OMNI-MEANS, Ltd.  
Psomas and Associates  
ERC Environmental and Energy Services Company, Inc.



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## EL DORADO COUNTY

### 2010 GENERAL PLAN

## RECONNAISSANCE REPORT

December, 1989

Prepared by:

Sedway Cooke Associates  
Urban and Environmental  
Planners and Designers

in association with:

Economic and Planning Systems, Inc.  
Omni-Means, Ltd.  
Psomas and Associates

ERC Environmental and Energy Services Company, Inc.





## TABLE OF CONTENTS

|                                                                                   | <u>Page</u> |
|-----------------------------------------------------------------------------------|-------------|
| 1.0 INTRODUCTION/EXECUTIVE SUMMARY                                                |             |
| 1.1 Reasons for a General Plan Update .....                                       | 1-1         |
| 1.2 Summary of the Reconnaissance Report .....                                    | 1-3         |
| 2.0 EXISTING PLANNING TOOLS                                                       |             |
| 2.1 El Dorado County Area Plans .....                                             | 2-1         |
| 2.2 El Dorado County General Plan Elements .....                                  | 2-7         |
| 2.3 Zoning Ordinance .....                                                        | 2-12        |
| 2.4 TRPA Plans and Ordinances .....                                               | 2-19        |
| 2.5 Maps, Report Graphics and Sub-area Boundaries .....                           | 2-21        |
| 2.6 Availability of Technical Data .....                                          | 2-26        |
| 2.7 Data Management .....                                                         | 2-33        |
| 3.0 PERCEPTION OF MAJOR PLANNING ISSUES                                           |             |
| 3.1 Land Use and Development .....                                                | 3-2         |
| 3.2 Growth Management and Infrastructure Availability .....                       | 3-4         |
| 3.3 Circulation .....                                                             | 3-5         |
| 3.4 Open Space, Conservation and Resource Management .....                        | 3-6         |
| 3.5 Public Safety and Hazards .....                                               | 3-7         |
| 3.6 Housing .....                                                                 | 3-8         |
| 3.7 Recreation .....                                                              | 3-8         |
| 3.8 Lake Tahoe Basin .....                                                        | 3-9         |
| 3.9 Implementation and Financing .....                                            | 3-11        |
| 3.10 The Perception of Issues and Their Relationship<br>to the General Plan ..... | 3-12        |
| 4.0 PUBLIC PARTICIPATION PROGRAM                                                  |             |
| 4.1 Policy Advisory Committee .....                                               | 4-1         |
| 4.2 Technical Advisory Committee .....                                            | 4-2         |
| 4.3 General Plan Forum .....                                                      | 4-3         |
| 4.4 General Plan Public Participation Process .....                               | 4-3         |
| 5.0 GEOGRAPHIC INFORMATION SYSTEM RECOMMENDATIONS                                 |             |
| 5.1 Background and Definitions .....                                              | 5-1         |
| 5.2 Attributes and Functions of GIS .....                                         | 5-3         |
| 5.3 Potential Applications .....                                                  | 5-5         |
| 5.4 Recommended Plan of Action .....                                              | 5-8         |

## 6.0 STRUCTURE OF THE GENERAL PLAN

|                                                        |     |
|--------------------------------------------------------|-----|
| 6.1 Relationship to Area Plans .....                   | 6-1 |
| 6.2 El Dorado County General Plan Update Outline ..... | 6-1 |

## 7.0 REVISIONS TO THE WORK PROGRAM

|                                                |     |
|------------------------------------------------|-----|
| 7.1 Necessary Revisions .....                  | 7-1 |
| 7.2 Options for County Consideration .....     | 7-3 |
| 7.3 Summary of Revised Work Program Cost ..... | 7-8 |
| 7.4 Revised Work Program .....                 | 7-8 |

|                                        |     |
|----------------------------------------|-----|
| APPENDIX A: REVISED WORK PROGRAM ..... | A-1 |
|----------------------------------------|-----|

|                                          |     |
|------------------------------------------|-----|
| APPENDIX B: ANNOTATED BIBLIOGRAPHY ..... | B-1 |
|------------------------------------------|-----|

|                                               |     |
|-----------------------------------------------|-----|
| APPENDIX C: LIST OF PERSONS INTERVIEWED ..... | C-1 |
|-----------------------------------------------|-----|

|                                                                |     |
|----------------------------------------------------------------|-----|
| APPENDIX D: MAPPING AND GIS EXPERIENCE IN OTHER COUNTIES ..... | D-1 |
|----------------------------------------------------------------|-----|



## LIST OF TABLES

|                                                                                                     | <u>Page</u> |
|-----------------------------------------------------------------------------------------------------|-------------|
| 2.1 Total Acres by Area Plan Land Use Designation and Ownership . . . . .                           | 2-4         |
| 5.1 Capabilities and Ease of Use of Thematic Mapping,<br>Point Based Mapping and True GIS . . . . . | 5-3         |
| 5.2 County Departments and Perceived GIS Functional Needs . . . . .                                 | 5-6         |

## LIST OF FIGURES

|                                                  |      |
|--------------------------------------------------|------|
| 2.1 Area Plan Boundaries . . . . .               | 2-3  |
| 2.2 Extent of Genge Mapping System . . . . .     | 2-22 |
| 2.3 Recommended General Plan Sub-areas . . . . . | 2-25 |
| 4.1 Public Participation Process . . . . .       | 4-4  |





## **1.0 INTRODUCTION AND EXECUTIVE SUMMARY**

The Reconnaissance Report is the first work product of the El Dorado County General Plan Update process. The objectives of this report, and the work tasks which have been necessary for it's preparation, are three-fold:

1. To establish a working relationship with county staff, planning commissioners, and the board of supervisors;
2. To identify and collect all available data and determine it's usefulness in the preparation of a new general plan; and
3. To refine the work program, schedule, and budget following an assessment of the data, funding priorities, and the issues to be addressed by the plan.

The Reconnaissance Report will be used to guide and direct the future efforts of the General Plan Team. It will be distributed among the various county departments which will be involved in the general plan process, the county decision-makers, and the general public. It is anticipated that this report will be used to stimulate public participation during public workshops regarding planning issues in the county and regarding the establishment of goals and objectives for the general plan. Most importantly, this report firmly documents the overall process by which existing planning documents, technical data, public input, and the efforts of the General Plan Team will be focused toward the development of a new general plan for the county.

### **1.1 Reasons for a General Plan Update**

Title 7, Chapter 3, Article 5, Section 65300 of the California Government Code states:

"Each planning agency shall prepare and the legislative body of each county and city shall adopt a comprehensive, long-term general plan for the physical development of the county or city, and of any land outside its boundaries which in the planning agency's judgement bears relation to its planning. In construing the provisions of this article, the (state) legislature intends that the general plan and elements and parts thereof comprise an integrated, internally consistent and compatible statement of policies for the adopting agency."

The general plan may be adopted as a single document or as a group of documents relating to subjects or geographic segments of the county, but shall consist of, at a minimum, the following seven elements: 1) land use, 2) circulation, 3) housing, 4) conservation, 5) open space, 6) noise, and 7) public safety.



Although El Dorado County does have a general plan (in the form of 26 separate area plans and the state mandated general plan elements) the Board of Supervisors have determined that these plans are outdated and inadequate for guiding the future physical development of the county.

The majority of El Dorado County General Plan Elements were prepared during the late 1970s and early 1980s. At that time, El Dorado County could be truly characterized as being a predominantly rural county. However, starting at about that same time period and continuing up until today, the county has experienced a tremendous and unanticipated population boom. In 1980 the county's population was approximately 87,700. By July of 1990 the State Department of Finance projects that the county's population will have grown to approximately 151,800 people, or a 73% increase. This population growth is changing El Dorado County from a rural county to one characterized by large scale residential and associated commercial development. The management tools and processes that worked for a rural county must be changed to manage this growth. By undertaking an entire General Plan Update, the county has an opportunity to focus new growth to preserve the rural character, to uphold and ensure the quality of new development, and to plan for necessary infrastructure improvements in a cost-efficient manner.

A concise, consistent, well thought-out general plan can be the most effective means by which the county can attract and maintain the type of quality development that it desires. In most instances, the types of developers who are interested in producing quality products are more responsive and attracted to those communities who have a clear vision and well constructed plan for the future. The plan must be fair, clear to understand, and responsive to current market forces and changing characteristics.

The need for a new general plan which is more responsive to the urbanizing nature of the county is clearly demonstrated by the numerous requests for general plan amendments. Some 30 to 40 general plan amendment requests are accepted annually by the Planning Division of the Community Development Department. In order to process these requests, the county has adopted a long-range land use plan primarily for the purpose of guiding and regulating proposed general plan amendments. Although state law allows for the general plan to be amended periodically, this massive process of general plan amendments is not an effective and efficient method to implement a plan. In fact, this amendment process frequently results in an internally inconsistent general plan.

In summary, the El Dorado County General Plan Update is being conducted to:

1. Accurately reflect the urbanizing nature of the county;
2. Clearly establish land use and development policies reflecting the goals and objectives of county residents;
3. Minimize the need for general plan amendment requests; and
4. Insure internal consistency between each of the general plan elements.



## 1.2 Summary of the Reconnaissance Report

### Existing Planning Tools

Following this introductory section, Chapter 2.0 of the Reconnaissance Report contains a description and evaluation of the existing planning tools used in El Dorado County today. These existing planning tools include the 24 separate area plans, the current general plan elements, the county's zoning ordinance, TRPA plans and regulations, existing procedures for data management and various mapped information.

The county's reliance on 24 separate area plans for land use policy direction has proven to be cumbersome, inefficient and often confusing to staff, project applicants and county decision makers. Although there are many positive attributes of these area plans, they will not be maintained in the new county general plan. Pertinent or applicable policies and data from these area plans will be extracted for use in the General Plan Update. Also, the area plan boundaries will be utilized to create general plan sub-areas. These sub-areas will consist of groupings of several geographically or culturally related area plans.

An entirely new land use element will be developed which will include an update of the housing element. A new circulation element will be prepared which will also incorporate an update to the scenic highways element. A new open space/conservation element will be developed which updates and combines the current Open Space and Conservation Element and the Seismic Safety and Safety Element.

The county's current zoning ordinance has evolved over time as a rather piecemeal collection of land use regulations. The overall structure of the ordinance is inadequate to address current types of land use, and the language used in the ordinance is not specific or definitive. We recommend that the current zoning ordinance be completely revised as part of the overall planning process.

The development of planning tools and land use regulations within the Tahoe Basin will require close coordination and consistency with the plans and ordinances of the Tahoe Regional Planning Agency (TRPA). This regional planning agency exercises land use authority over all lands within the Tahoe Basin, including those within El Dorado County. The county's new general plan and zoning ordinance will be structured to enable the county to administer a greater share of the land use and development permit processes which have traditionally been administered by the TRPA.

Perception of Major Planning Issues. Through a process of personnel interviews, public meetings and survey questionnaires, the General Plan Team has acquired a fairly broad understanding of the major planning issues which are facing El Dorado County today. The new general plan will be designed to respond to each of these issues with an overall plan for issue resolution and a list of objectives and policies to implement the plan. Those major issues which have been discovered during the reconnaissance phase are listed in outline form below.



#### Land Use and Development Issues:

- Growing process of urbanization.
- Preservation of rural character.
- Maintaining unique community character.
- Clustered, high intensity development versus low intensity, scattered development patterns.
- Lack of an up-to-date land use inventory.
- Economic development of the county through the creation of new job opportunities.
- Interface between the county and the U.S. Forest Service, TRPA, state parks and the cities of Placerville and South Lake Tahoe.
- Appropriate density and grading requirements on hillsides and steep slopes.

#### Growth Management and Infrastructure Availability Issues:

- Development of new water supply sources.
- Capacity of water distribution facilities to accommodate new growth.
- Capacity of wastewater collection and treatment facilities to accommodate new growth.
- Potential water quality problems resulting from increased septic system use.

#### Transportation and Circulation Issues:

- Maintaining an acceptable level of service on county roadways.
- Identification and financing of necessary roadway improvements.
- Defining the role of Transportation Systems Management (TSM) and alternative modes of transit.
- Maintaining a scenic corridor along Highway 50.

#### Open Space, Conservation and Resource Management Issues:

- Preservation and protection of agriculture and agricultural lands.
- Protection of ridgelines, hillsides and other important open spaces characteristics.
- Management and productive development of mineral and timber resources.
- Preservation of wildlife habitat and migratory corridors.

#### Public Safety and Hazards Issues:

- Potential occurrence of a major fire.
- Exacerbation of fire hazards by new development within forested areas.
- Lack of a uniform fire code or established fire prevention standards.
- Seismic hazards and landslides.

### Housing Issues:

- Decreasing supply of affordable housing.
- Ineffective implementation of existing housing programs.

### Recreation Issues:

- Lack of county park facilities, especially parks which are oriented towards the needs of urban communities.
- Access to the South Fork of the American River for recreational rafters.
- Impacts of expanded recreational facilities within the Eldorado Forest on the county.

### Lake Tahoe Issues:

- Coordination and consistency with TRPA plans and ordinances.
- Establishing El Dorado County's position regarding future transportation improvements within the basin.
- Assuming a greater role in processing development permits within the Tahoe basin.
- Unattractive visual appearance of the Meyers community as the gateway to Tahoe.

### Implementation and Financing Issues:

- Need for a consistent set of land use policies and regulations.
- Inefficient project review process.
- Infrequent preparation of Environmental Impact Reports (EIRs).
- Fee collection--should new development realistically "pay its own way".
- Defining the role of assessment districts and community service districts in the provision of public services.
- Integrated capital improvement program consistent with the plan.

### Public Participation

California planning law requires that, "during the preparation of a general plan, the planning agency shall provide opportunities for the involvement of citizens, public agencies, public utility companies, and other community groups."<sup>1</sup> This general plan update process will include three formal avenues for public participation. First, a Policy Advisory Committee (PAC) has been appointed by the Board of Supervisors. This 15 member committee will provide policy direction to the General Plan Team, will review draft documents, and will provide their recommendations on general plan documents to the board. Second, a Technical Advisory Committee (TAC) will be formed comprising representatives of various federal, state and local government agencies, public service providers, and community service districts. The TAC will provide technical guidance and review to the General Plan Team. Third, a general plan forum will be provided to allow all interested citizens an

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<sup>1</sup>California Government Code, Section 65351.



opportunity to participate in the preparation of the general plan. General plan forums will be held at various locations throughout the county at key points during the planning process.

### Geographic Information System Recommendations

The original General Plan Work Program included, as an option for county consideration, the development of a pilot Geographic Information System (GIS). During our reconnaissance efforts, we have discovered that several county departments have already formed an ad-hoc GIS committee to work towards the establishment of a GIS. We recommend that this committee continue in their efforts to establish and implement a GIS separately and independently from the General Plan Team. The General Plan Team should concentrate their efforts on preparing the General Plan Update, the County Zoning Ordinance and the General Plan EIR.

While pursuing a county-wide GIS, the committee should strongly consider the following issues. First, there is a wide variety of GIS programs which are available, ranging from data base managers and thematic mapping systems to point based mapping and "true" GIS. The county should carefully examine the unique needs of each department before selecting a GIS. Second, each of the various county departments will likely have different requirements from a GIS, depending upon their function or accuracy demands. One GIS program may not be able to fulfill each department's needs. Third, the operation and maintenance of a county-wide GIS system will require a major commitment of staff time and funding. The skills required to operate a GIS are in high demand, and the county will have to compete with other governments and the private sector in order to hire and keep competent staff.

### General Plan Outline

Included within the Reconnaissance Report is a preliminary outline of the anticipated structure of the general plan document. Of particular importance is the elimination of the area plans. The proposed structure of the general plan includes six separate elements; a Land Use Element (including a discussion of housing issues), a Community Plan Element (incorporating relevant portions of the area plans), a Circulation Element, a Public Services Element, a Conservation/Open Space Element (including discussions of public safety, seismic safety and noise), and an Implementation Element (discussing financing and administrative procedures). As an option, the county may wish to include a separate recreation element as well.

### Revised Work Program

Based upon our initial reconnaissance efforts, we recommend that the county should consider several revisions to the existing work program. The first, necessary revision involves the development of the general plan monitoring system. The most likely and efficient tool for creating a development monitoring system would be a county-wide GIS. As previously stated, we recommend that the county should pursue a GIS system on an independent

course separate from the general plan process. It is not possible at this time to predict the re-programming and system design efforts which will be required to adapt the general plan data base to be compatible with a future, county-wide GIS. We strongly suggest that the costs for these efforts should be negotiated when the county has a GIS system in place.

Second, we recommend that the efforts of the engineering subconsultant, Psomas Associates, be focused on the major infrastructure issues on the western slope. Their analysis and plans should be confined only to those water systems in state jurisdiction (more than 200 connections), wastewater systems in regional board jurisdiction, and significant public drainage systems. A great deal of time and effort would be unwisely used if each of the more than 200 water systems in the county were studied in detail. This detailed level of analysis would not be appropriate for a general plan document. Additionally, due to the extensive existing data base regarding infrastructure within the Tahoe Basin, we believe that an analysis of Tahoe infrastructure would constitute "re-inventing the wheel." Instead, we propose that Sedway Cooke Associates (SCA) should summarize and present the existing available data pertaining to the Tahoe Basin.

Third, we believe that the county should acquire a set of recent aerial photographs of the western portion of the county. These photographs would be a valuable tool in preparing the General Plan Update, and would be an important resource for the county to own, independent of the general plan process.

Fourth, we believe that it would be in the best interests of the county and the entire General Plan Team to closely coordinate and program the efforts of county staff. The county has made a major commitment of staff time as well as financial resources towards this general plan, and we believe that regular coordination meetings between the county's project manager and the consultants will be necessary to efficiently program the work tasks to be conducted by county staff.

A list of optional additional work tasks have also been included for county consideration. These options include:

1. The preparation of a county-wide "visions" report documenting citizens' visions for the future of the county;
2. Individual evaluation of specific development proposals received during the interim period of plan preparation;
3. The preparation of concise, easy-to-use application forms for general plan amendments, zoning changes, use permits, subdivisions, parcel maps, and zoning variances.
4. A review and evaluation of the county's current permit processing procedures, including recommendations for making development processing more efficient and consistent.



5. The preparation of an expanded recreation element within the general plan, which would evaluate and develop a recreation plan for the county at a greater level of detail than is currently anticipated.

Each of these optional work tasks would require an amendment to the existing contract.

## **2.0 EXISTING PLANNING TOOLS**

This section of the Reconnaissance Report is intended to accomplish two objectives. The first objective is to identify and briefly describe each of the "planning tools" which are currently available in El Dorado County. Planning tools are loosely defined as any existing plans, ordinances, regulations, data or reference material which are used for the general purpose of shaping or directing the physical development of the county. The second objective is to provide an appraisal of the relevancy, effectiveness and availability of these tools to the general plan process. Those tools which will be described and evaluated include; 1) the 24 separate area plans, 2) the various elements of the County General Plan, 3) the County Zoning Ordinance, 4) various Tahoe regional planning agency plans and ordinances dealing with the Tahoe Basin, and 5) any sources of data or background information including computerized parcel based information, mapped data, and various technical reports and documents.

### **2.1 El Dorado County Area Plans**

El Dorado County's primary planning tools for establishing land use and development policies are a series of 24 separate area plans. These area plans represent updates to the 1969 Land Use Element of the County General Plan. Each of the 24 area plans was prepared by the El Dorado County Planning Department and a citizens advisory committee for that particular area. The first of these area plans, the American Flat-Spanish Flat-Bear Creek Area Plan, was adopted in October of 1975. This relatively short, 18 page document contains a strong policy statement by the citizens committee which states that "the desires and objectives of a given geographical area can best be understood and interpreted by those people living in that area." The primary effect of this area plan was to reduce the amount of potential development allowed under the 1969 plan. This reduced development potential represented a future population and residential density reflective of the rural character the community desired to maintain.

Recognizing the influence that local residents could have in shaping future development policies within their community and preserving their rural lifestyles, the communities of Greenwood, Rescue, Shingle Springs and the Pleasant Valley soon prepared area plans of their own. The need for these early plans was cited as: 1) a rapid population growth within the area, 2) large numbers of recent land divisions, 3) the creation of new, large subdivisions, and 4) significant growth-inducing projects (such as the creation of a new sewer district or proposed water development projects). In each of these early area plans, the general plan update process was used to reduce allowable densities from those of the 1969 Land Use Element.

Other individual communities throughout the county prepared area plans in an effort to more closely correlate land use and development policies with the goals and desires of



local residents. With the adoption of the Camino/Fruitridge Area Plan in May of 1985, virtually every community (or groups of communities) on the entire western slope of the county had prepared an area plan. Figure 2.1 Area Plan Boundaries shows the boundary for each of the existing area plans. Although many of these area plans continued to cite rapid population growth and land division/subdivision issues as the reason for preparing the plan, many new issues and needs arose. Additional reasons included: 1) limitations on water supplies to support new development, 2) increased traffic congestion and deficient roadway systems, 3) an attempt to more closely match land use policy with the land capability, 4) a desire for efficient, planned growth, 5) plans for developing new communities, and 6) a growing awareness of the legal requirement for consistency between the County General Plan and Zoning Ordinance.

Although each area plan is unique in its approach for dealing with the specific issues facing its area, the contents of each area plan (with a few exceptions) are relatively similar. Nearly all of the plans begin with a summary and list of reasons for updating the general plan. Following the summary is a discussion of the goals and policies for land development, set by the Citizen Advisory Committees. The bulk of nearly every area plan consists of a thorough discussion of the existing physical and cultural environment including analyses of geology, slopes, vegetation, wildlife, hydrology, public services, housing and infrastructure. Finally, with the exception of only the first few plans, each includes an Environmental Impact Report disclosing the potential impacts of the plan and recommending appropriate mitigation measures.

In total, the area plans provide land use policy and direction for more than 450,000 acres of private land within the county and an additional 42,000 acres of Bureau of Land Management (BLM) or U.S. Forest Service lands. This represents approximately 45% of the 1,093,000 total acres within El Dorado County. The remaining 55% of the land within the county consists of public lands within the jurisdiction of either National Forest, Bureau of Reclamation, Bureau of Land Management, or the State of California. A small percentage of private county lands are not covered under one of the 24 area plans. These lands are generally private landholdings within the National Forest, and private lands in the Tahoe area.

Table 2.1 identifies the land uses designated at the time the area plans were adopted. A significant number of general plan amendments have taken place since that time. These amendments altered the composition of land use designations within the county. The next phase of the general plan process, baseline conditions, will identify area plan amendments and establish current land use breakdowns within the county.

As shown in Table 2.1, less than 1% of the total county land (or 3% of the lands included within any of the area plans) are currently designated for urban, intensive land use. Approximately half of all urban designated lands are found within the communities on the lower, western portion of the county (primarily within the Cameron Park and El Dorado Hills Area Plans). Approximately 11% of the total county land (or 25% of the lands included within any of the area plans) are designated for residential use, and most are included within the low density category (5 acre minimum parcels). Residential land is evenly

Figure 2.1:

## AREA PLAN BOUNDARIES





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**Table 2.1: Total Acres by Area Plan Land Use Designation and Ownership**

| <b>Sub-Area Lands</b>                                                                                     | <b><u>Acres</u></b>    | <b><u>% of Area Plan<br/>Land Use</u></b> | <b><u>% of Total<br/>County Land</u></b> |
|-----------------------------------------------------------------------------------------------------------|------------------------|-------------------------------------------|------------------------------------------|
| <u>Urban Lands</u>                                                                                        |                        |                                           |                                          |
| Industrial                                                                                                | 3,650                  | 1%                                        |                                          |
| Commercial                                                                                                | 2,680                  | 1%                                        |                                          |
| Multi-Family Residential                                                                                  | <u>1,860</u>           | <u>1%</u>                                 |                                          |
| Subtotal                                                                                                  | 8,190                  | 3%                                        | 1%                                       |
| <u>Residential</u>                                                                                        |                        |                                           |                                          |
| Single-Family, High                                                                                       | 19,050                 | 4%                                        |                                          |
| Single-Family, Medium                                                                                     | 25,150                 | 6%                                        |                                          |
| Single-Family, Low                                                                                        | <u>72,980</u>          | <u>16%</u>                                |                                          |
| Subtotal                                                                                                  | 117,180                | 26%                                       | 11%                                      |
| <u>Agriculture/Open Space</u>                                                                             |                        |                                           |                                          |
| Rural Residential                                                                                         | 236,070                | 52%                                       |                                          |
| Timber Preserve                                                                                           | 46,200                 | 10%                                       |                                          |
| Open Space                                                                                                | 28,250                 | 6%                                        |                                          |
| Agriculture                                                                                               | 7,830                  | 2%                                        |                                          |
| Parks/Recreation                                                                                          | 6,460                  | 1%                                        |                                          |
| Public                                                                                                    | <u>680</u>             | <u>0%</u>                                 |                                          |
| Subtotal                                                                                                  | 325,490                | 71%                                       | 30%                                      |
| Total Area Plan<br>Designation                                                                            | 450,860                | 100%                                      | 41%                                      |
| <b>Public Lands</b>                                                                                       | 552,170 <sup>1</sup>   |                                           | 51%                                      |
| <b>Private Lands not<br/>included within area<br/>plan boundaries<br/>(primarily timber<br/>preserve)</b> | <u>90,030</u>          |                                           | <u>8%</u>                                |
| Total Acres in County                                                                                     | 1,093,060 <sup>1</sup> |                                           | 100%                                     |

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Source: Sedway Cooke Associates

<sup>1</sup> Long Range Land Use Plan, El Dorado County, 1981.

distributed among each of the areas. By far the most predominant land use category all of the area plans is Rural Residential/Agriculture. This category comprises more than half of all lands governed by area plans, and more than 20% of the entire county. It consists of those parcels between 10 acres and 160 acres in size. In total, all agricultural and open space uses account for 30% of the total county lands and 71% of the land use designations identified within the area plans.

### Benefits of the Area Plans

One of the most important aspects of the area plan documents is that each of the plans was prepared by the residents of the community. Therefore, the policies and guidelines are unique to the community; they represent the consensus of opinions and concerns of the local residents, and they are a prime example of "grass-roots" planning. Residents readily identify with the area plan for their community, and are willing to share the responsibility of monitoring future development. The communities have a greater vested interest in the general plan process because they were directly involved in its preparation.

The area plans contain a thorough description of the physical and cultural environment. Some of this information (particularly with regards to existing housing stock and public service capabilities) has become outdated as a result of new development and capital improvement projects. The physical environment has remained primarily the same, however. Characteristics such as topography, climate, geology, hydrology, soils, vegetation, and wildlife are much, if not entirely, the same today as they were five to ten years ago.

Additionally, nearly every area plan contains a major section devoted to describing the history of the area. For example, as stated in the Lotus-Coloma Area Plan, "James Marshall's discovery of gold at John Sutter's sawmill on the American River near Coloma makes El Dorado County one of the most significantly historical regions in the nation." The rich historical perspectives which are contained within each area plan provide an understanding of the events and persons which have shaped El Dorado County since the 1800s. The historic descriptions also provide insight into the origin of the values and quality of life that so many of El Dorado County residents desire to maintain.

The environmental impact reports which accompany all but the very first few area plans range from very short and concise studies (such as the ten-page EIR for the Garden Valley Area Plan), to much more detailed and technical reports (such as the 90-page EIR and technical appendix contained in the Pollock Pines Area Plan). Regardless of their magnitude or comprehensiveness, each of these EIR's contain recommended mitigation measures which are intended to reduce the potential impacts of development on the physical environment. The creative ideas and strategies contained within these EIRs, if fully implemented, can continue to assist in the preservation and maintenance of a quality, natural environment in El Dorado County.



## Negative Aspects of the Area Plans

The unique nature of each area plan, (previously described as one of the greatest benefits of these documents) is at the same time one of their most difficult, negative attributes. The El Dorado County Planning Department, which is charged with administering the general plan and its implementing ordinances, consists of a small and frequently revolving number of employees. For county planners to effectively accomplish this job, they must be familiar with not just one general plan, but all 24 area plans. And since each area plan is unique in its approach, the county planners must go through a process of mentally "shifting gears" when they are dealing with more than one area plan at a time. From another perspective, potential developers within the county must learn not just one set of rules, but up to 24 different sets of rules depending upon where their development project is located. This process continually leads to frustration and inefficiency for all of the people working with these plans on a regular basis.

Another negative aspect of the area plans is that they do not share a common vocabulary. For example, the single family, high-density residential category is defined as 1 to 3 dwelling units/acre in the El Dorado/Diamond Springs Area Plan; 1 to 5 dwelling units/acre in the Cool/Pilot Hill Area Plan; 10,000-square-foot minimum lots in the Rescue Area Plan; and one-half acre minimum lots in the American Flats/Spanish Flats/Bear Creek Area Plan. Improvement standards also vary from one area plan to another. For example, the El Dorado Hills/Salmon Falls Area Plan requires that public water and sewer be provided on all parcels less than one acre in size, while the Cameron Park Area Plan requires similar improvements on parcels of less than two acres. Aside from the confusion which this creates among planners, developers and county decision-makers, it also has legal implications. According to California State law, general plans and their implementing ordinances are required to be consistent. It is virtually impossible for the county to maintain consistency between each of the area plans and the county zoning ordinance if definitions, standards and requirements vary from one planning area to the next.

During the past 10 to 15 years, El Dorado County has experienced a tremendous population growth. In 1980, the county's population was approximately 87,700. The California Department of Finance estimates that by July of 1990, El Dorado County will have a population of 151,800 people--a 73% increase from 1980. Although many of the area plans attempted to curtail or manage this population explosion, the population simply grew at a much faster rate than anyone expected. The anticipated 20-year buildout of many plans was realized in half that amount of time or less. The large number of general plan amendments which have been proposed and approved over the past several years have dramatically changed the pattern of land use from that which was originally planned in the area plans. For these and many other reasons, many of the goals and policies presented in the area plans have become outdated and/or obsolete. For example, the 1981 Long Range Land Use Plan identifies the Shingle Springs-El Dorado area as one of the major urbanized areas of the county, yet the Shingle Springs Area Plan (prepared only 4 to 5 years earlier) stated that Shingle Springs residents were dedicated to maintaining a rural atmosphere. One of the development policies enacted to maintain this rural atmosphere was to discourage public

sidewalks, curbs, gutters and street lighting. Clearly, this type of development policy no longer reflects an appropriate standard for an urbanized Shingle Springs.

### Applicability of Area Plans in the General Plan Update

The area plans have many excellent qualities, but unfortunately these qualities are often obscured by their inconsistencies and outdated information, and hampered by the administrative difficulty in implementing such a large number of plans. The job of the General Plan Team will be to select data, recommendations or policies which are still relevant and applicable, and to devise a new general plan framework which is more responsive to the current needs of the county. The 24 separate areas will not be recognized in the General Plan Update. However, six or seven sub-areas of the county will be designated to assist in assembling data, establishing baseline conditions and developing goals and policies. Section 6.0 General Plan Outline describes how these sub-areas will be defined; it is anticipated that they will generally correspond to groupings of adjoining area plans.

The General Plan Update will contain one set of goals, objectives and policies which will be applicable to the entire county. This is necessary to ensure consistency between the plan and its implementing ordinances and to make the plan more effective for county staff, project developers, service providers and decision-makers. A subset of special policies, applicable only to certain areas of the county, will also be developed. This subset of policies will respond to unique circumstances or characteristics within the sub-areas of the plan. Appropriate policies from the area plans may be utilized to develop this subset of general plan policies.

The physical and cultural setting sections from each of the area plans will be used as a primary source for establishing county-wide baseline conditions. Any necessary updates to the setting sections will be prepared by the General Plan Team.

## **2.2 El Dorado County General Plan Elements**

### Long Range Land Use Plan, (December 1981)

This plan was prepared to provide a general pattern for land use development in the county over a 20 year time period extending to the year 2000. The plan and the policies it contains are intended to act as an overall guide for the area plans, and to regulate any proposed amendments to the area plans. Generally, the long range plan divides the county into three major land use classifications; agricultural lands, urban lands, and rural residential lands. Each of these land use classifications are described, and set of generalized policies developed.

Agricultural lands are divided into existing and potential agricultural lands. Existing agricultural lands consist of commercially productive lands, lands under Williamson Act contract, and lands zoned Timber Preserve or Planned Agriculture. Potential agricultural



lands consist of lands with prime agricultural soils as defined by the 1974 Soil Conservation Service (SCS) Soil Survey which are zoned for greater than 10 acre minimum parcels and are not adversely affected by incompatible adjacent land uses. The El Dorado County agricultural council, the SCS, and the county planning department have developed a point-based rating system for identifying potential agricultural lands on a parcel-specific basis. This system is incorporated into the long range plan. The policies under the agricultural land use category are intended to protect and preserve the agricultural lands of the county.

The county's urban lands are those designated and/or used for industrial, commercial, multi-family residential, and high and medium density single-family residential use. Lands which can be considered for future urban use are those which have available public water and sewer service, are located within a fire protection district, have an available telephone and electrical system, and have immediate access to the state and county road system. The policies relating to urban lands are intended to encourage a consolidation of intensive land uses into "urban clusters" to provide cost-effective infrastructure and public services, and to discourage urban sprawl.

The rural residential lands of the county are the transitional lands between agricultural and urban use. These lands are not intended to be provided with urban services such as water and sewer systems. These rural lands are also frequently located within wildlife habitat and migratory corridors. The policies relating to these rural lands are intended to discourage the extension of public services and protect wildlife habitat.

Appraisal. The long range land use plan will be completely replaced by the land use element of the new general plan. However, some important aspects of the long range plan are anticipated to be utilized during the general plan process. The point-based rating system for determining potential agricultural lands will be carefully reviewed for incorporation into the plan. Additionally, many of the policies from this document may continue to be pertinent and applicable to the new general plan. The long-range land use map will not be retained, but instead will be replaced with a more detailed land use map which will be intended to guide the pattern of future land use through the year 2010.

#### Housing Element (1984)

The housing element is very well-organized and concise. The introduction discusses state policy and authorization, the element's relationship to other general plan elements, and the housing planning process. The housing plan presents goals and objectives in a unique way. First, a list of "findings" establishes the basic economic principles that guide the housing market. Next, four goal statements call for the provision of quality housing for a variety of tastes and incomes, built in an orderly and environmentally conscious manner. One goal specifically points out the local government's responsibility to assist private developers in providing housing. Following the goals, 10 objectives clearly state the processes by which the goals will be obtained. Several programs are suggested for each objective. Many of the programs rely on density bonuses for projects which provide affordable housing. The Community Development Department is designated to provide educational and



informational services to developers and the public. Owner-built housing programs are also encouraged.

Housing needs, resources and constraints, are also discussed. Topics include affordability, special housing needs, overcrowding, and existing housing conditions. Population projections, reductions in the supply of affordable housing regional "fair-share" housing needs, and available development sites are utilized to calculate future housing needs.

Appraisal. SCA anticipates that the housing element can be incorporated into the new general plan without major modifications. Growth projections and housing needs will be updated, and the format will likely be revised to conform with the overall structure of the general plan but major revisions do not appear warranted. An update to the county's Housing Element is required by State statute prior to June 30, 1991.

#### Scenic Highways Element (1984)

The scenic highways element recognizes the historical importance of many El Dorado County roads. The element discusses state scenic highways and numerous county scenic routes. The document begins with goals for establishing scenic corridors and enhancing tourism along those routes. Policies focus on limiting signage and controlling development. The plan also contains a scenic highway program. This program outlines evaluation procedures for scenic highway designation. An extensive list of state and county roads that might qualify for the designation are included. Finally the plan presents general guidelines for protecting the scenic corridor.

Appraisal. The scenic highways element thoroughly documents the plan for scenic highways within the county. County staff has been charged by the Board to prepare a scenic highway ordinance for the Highway 50 corridor. Assuming that this ordinance is prepared concurrently with the General Plan Update, SCA and Omni-Means will evaluate the consistency of this ordinance with the current scenic highway element, and incorporate any revisions or updates which might be necessary. The scenic highway element is anticipated to be incorporated into the circulation element of the General Plan Update.

#### Open Space and Conservation Element, (1984)

The Open Space and Conservation Element is divided into three parts: the plan, the setting and the environmental analysis. Goals of the plan are organized into four major categories: the preservation of natural resources; the management and production of resources; outdoor recreation; and public health and safety.

Goals and policies for the preservation of natural resources focus on protecting fish and wildlife habitat, agriculture and timber lands, mountains, forest and water bodies. The goals and objectives pertaining to resource management and production focus primarily on the management of timber resources, the protection of natural resources for use by future generations, and mitigating potential land use conflicts with adjacent land uses. Recreational goals and objectives discuss the potential for obtaining new sources of

recreational funds, protecting existing recreational resources from development, and restoring historic and cultural sites as recreational facilities. Health and safety goals and objectives seek to protect lives and property from fire, flood, landslides, and snowslides.

Appraisal. The Open Space and Conservation Element will provide a great deal of background information to the General Plan Team regarding natural resources, and many of the objectives and implementation policies will be incorporated into the new general plan. The Open Space and Conservation Element will need to be carefully reviewed for consistency with the other elements of the plan, as it contains numerous references to area plans, land use designations and zoning districts which will become obsolete with the development of the new general plan. Although this document is only five years old, the data will be updated based upon more current information. An entirely new Open Space and Conservation Element will be developed for the General Plan Update.

#### Seismic Safety and Safety Element, (1979)

The Seismic Safety Element includes a generalized description of the geology of El Dorado County. The goals and policies of this element focus on enforcing building code standards and identifying seismic and geologic hazards prior to allowing new construction. Other policies encourage adequate review of circulation patterns within new developments to assure emergency access and recommend further study of seismic hazards.

The Safety Element presents the goals and policies regarding flooding hazards, fire hazards and man-made hazards. Policies focus on the proper development of properties within the 100-year flood plan, appropriate fire prevention measures, the proper use and storage of hazardous materials, and the coordination of county and state agencies for emergency response situations.

Appraisal. The Seismic Safety and Safety Element are severely deficient in their presentation of information and the development of plans and policies. Additional data sources, including the State Division of Mines and Geology, the Federal Emergency Management Administration, the individual Fire Protection Districts, and the California Department of Forestry will be relied upon to provide a much more accurate, up-to-date, and complete information base. The development of safety and seismic safety policies will conform to state mandated requirements, but will be tailored to suite the specifics of El Dorado County. A completely revised safety element will be incorporated into the Open Space and Conservation Element of the General Plan Update.

#### Noise Element, (1979)

The Noise Element defines the federal and state standards for noise acceptability levels within various types of land uses. The element also identifies and describes each mobile and fixed noise source within the county, and identifies all sensitive noise receptors (such as hospitals, churches, schools, etc.). A variety of noise reduction measures are included within the element, including reduction in traffic speeds and volumes, noise screening and baffling, and noise insulation.



Appraisal. The existing Noise Element is more than 10 years old, and it is anticipated that most, if not all, of the noise levels shown in the element are no longer accurate. The General Plan Update will provide more current data to update the Noise Element. Additionally, new noise reduction methods will be incorporated, and a discussion of compatible land use standards will be provided.

#### Recreation Element, (1978)

The county's current Recreation Element consists of three separate documents, the Recreational Plan (1978), the Bikeway Master Plan (1979), and the Hiking and Equestrian Trails Plan (1989). The majority of the Recreation Plan consists of the specific recreational plans of the Cameron Park and El Dorado Hills Community Service Districts. An overall recreation plan for the county was never fully developed. The Bicycle Master Plan, however consolidates the plans of CALTRANS, Tahoe City P.U.D., El Dorado Hills, Lake Tahoe, and the remainder of the county to formulate a plan which includes recommended bicycle routes, necessary improvements, and bicycle lane design standards. Similarly, the Hiking and Equestrian Trails Plan contains a comprehensive study of trails acquisition strategies, recommended routes, and appropriate design standards.

Appraisal. At a recent meeting of the El Dorado County Recreation Providers (October, 1989) the need for a new Comprehensive Recreation Plan for the county was discussed. Because of the important role which recreation plays within the economy, a recreation plan is considered to be a crucial aspect of county-wide planning. SCA has prepared a survey questionnaire for distribution to each of the county's recreation providers to solicit current information regarding the types of existing facilities, current and anticipated deficiencies in recreation services, and recommended standards or "carrying capacities" for recreation facilities and services. Responses to this questionnaire will be utilized to develop a new recreation plan for the county. Under our current Work Program, this recreation plan will comprise a sub-section of the Community Services Element. However, the county may wish to consider an expansion of the Work Program to provide for a more detailed analysis and recommendation, and the preparation of a separate Recreation Element.

#### Circulation Element (1969)

The currently adopted Circulation Element for the county consists of three pages of text which describe the major roadways within the county, proposed future roadways, and traffic volumes which were experienced during 1969.

Appraisal. Clearly the County Circulation Element is inadequate and out of date. The county has recognized the inadequacy of this element and has prepared a new Draft Circulation Element (DKS Associates, 1989). The Draft Circulation Element has yet to be certified and is pending environmental review. A discussion of this Draft Circulation Element and its role in the planning process is included in Section 2.6 (page 2-30).

## 2.3 Zoning Ordinance

A zoning ordinance serves multiple functions. It must implement and be consistent with the general plan, provide guidance for interested parties on the types of land use regulations and procedures, and be written so that it is clear and unambiguous.

The current zoning ordinance was analyzed in enough detail to formulate initial perceptions that will be useful throughout the general plan/zoning ordinance revision. Most of the analysis of the ordinance focused on the zoning districts because they may serve to assist in the formulation of the land use categories of the General Plan Update. A Zoning Ordinance Approach Memorandum will be prepared after the land use categories are determined; this will serve as the basis for the revision of the ordinance.

In general, the county needs a completely new zoning ordinance. Existing provisions will be used as appropriate, but the structure as well as specific sections will be modified as required. Since almost everyone agrees that the ordinance is not working well, this report only highlights some of the issues. These are as follows:

- The current zoning ordinance is not a coherent document, probably due to the number of changes that have been made in it over the years. This makes the ordinance very difficult to use and results in internal inconsistencies.
- Some provisions are outdated while others, such as the definitions sections, are simply inadequate.
- Procedures are sometimes mixed in with substantive regulations; this causes confusion on the part of the reader.
- The chapters do not have "intent" sections which would aid in their interpretation.
- The relationship between the ordinance and the area plans is often confusing, especially to the occasional user.
- Some of the language is inordinately legalistic and obtuse.
- The structure of the ordinance does not draw the reader along and guide him or her to the relevant sections.
- The format of the zoning districts is not consistent.
- Many zoning districts have long lists of uses instead of using more generic categories of uses.
- The ordinance does not reflect that El Dorado County is changing from a rural to an urbanizing county.



The result is an ordinance which provides relatively little guidance to the applicant, the staff, the public, and decision makers. In general, the ordinance is outdated, inconsistent, and lacks precision. Fortunately, practically everyone recognizes the inadequacies of the ordinance; therefore consensus exists for a major overhaul.

#### Existing Zoning Districts

El Dorado County's current zoning ordinance contains provisions for 36 separate zoning districts. There are a total of 17 residential districts providing for a range of densities from multifamily dwellings to single family homes on 160 acre lots. The ordinance contains four distinct commercial districts and two industrial districts. Nine separate natural resource management and protection districts are established, and there are an additional three special overlay or combining districts.

Residential. The residential districts can be divided into four separate categories: Agricultural residential, estate residential, single family residential, and multifamily residential. The purpose of agricultural residential districts is to "provide for the orderly and timely development of residential and agricultural uses consistent with natural conditions and desirable development patterns." These district's generally provide for single family detached dwellings and customary agricultural uses including packing, processing and the sale of products provided on those parcels. Minimum lot sizes within these districts range from 20 to 160 acres. These specific zoning districts include RA-160, RA-80, RA-60, RA-40 and RA-20, with the number designating the minimum parcel size.

The estate residential districts (RE-10 and RE-5) provide for a similar type of rural-residential development on lands having "sufficient space and natural conditions compatible with residential, agricultural and horticultural pursuits, and which provide for the protection from the encroachment of unrelated uses which tend to have an adverse effect on the development of such uses. The estate districts generally provide for the development of single family residential dwellings (with a minimum of 600 square feet per unit), barns, and customary agricultural uses. Minimum lot sizes are 5 and 10 acres.

The single family residential districts (R3A, R2A, R1A, R20,000, and R1) are designed primarily to "provide for the orderly development of suburban single family residential land use." Within the larger (2 and 3 acre) parcels, non-commercial agricultural uses are permitted. Stables are permitted with the one acre parcel size district. The R-1 zoning district is the primary urban single family residential zone. Minimum lot size within this district depends upon the availability of public services; if both public water and sewer are available the minimum lot size is 6,000 square feet, if the parcel is dependent upon a well or a septic system the minimum lot size is 10,000 square feet, and if the parcel relies on both a well and a septic system the minimum parcel size is 20,000 square feet. The height limit in all single family residential districts is 35 feet, and the maximum building coverage of parcels one acre or less in size is 35%.

The final category of residential zoning is multifamily residential districts (R2, RM RT and MP). Generally, these districts provide for both single family and multifamily residential development on minimum lot sizes of 6,000 square feet. The Tourist Residential (RT) District also allows for motels, cottage courts and accessory commercial uses such as restaurants and service stations. Allowable densities within these districts vary. The Limited Multifamily (R2) District sets a minimum standard of 2,000 square feet per dwelling unit (or 21 units per acre), while the Multifamily and Tourist Residential (RM and RT) districts set a minimum standard of 1,000 square feet per dwelling unit (or 45 dwelling units per acre) for first and second story units and 750 square feet for units above the second floor. Each of these districts allow for a maximum building coverage of 50% of the lot, with maximum building heights of 40 feet (R2) and 50 feet (RM and RT). The Mobile Home Park District (MP) is also included within the multifamily residential category although it has several unique characteristics. All development of mobile home parks require the approval of a use permit. The minimum overall lot size for a mobile home park is 10 acres, with a maximum density of seven units per acre. Individual lot size requirements are 2,700 square feet for a standard mobile home, and 3,600 square feet for a double-wide mobile home. Additionally, a minimum of 20% of the overall lot must be designated for recreational use, including landscaped areas.

Commercial. There are four separate commercial zoning districts: Commercial (C), General Commercial (GC), Planned Commercial (CP), and Professional Office Commercial (CPO). Each of these districts are intended to provide for the development of typical commercial uses such as retail stores, offices, restaurants, etc., and do not allow for residential development as a permitted use. An exception is the Professional Office District which is established solely for "professional, administrative and business offices and related uses located in proximity to residential uses." Multifamily residential uses of a maximum of four dwelling units per structure are permitted within the CPO district without a use permit. Any proposed development within both the Professional Office and Planned Commercial District require approval of a site plan by the planning director. Minimum lot size requirements within the commercial districts are as follows; C-5,000 square feet; CP-5,000 square feet, CPO-6,000 square feet, and GC-10,000 square feet. Within all commercial districts the maximum building coverage is 60% of the lot and the maximum height is 50 feet, except that the Professional Office District allows only 50% building coverage with a 10% landscaping requirement and a maximum height of 35 feet. The Professional Office District also has a 20 foot front setback, as opposed 10 feet for all other commercial district.

Industrial. El Dorado County has only two industrial zoning districts, (I) General Industrial, and (R&D) Research and Development. The Industrial District permits any industrial use (other than auto wrecking yards) which does not result in any physical or environmental hazard to adjacent properties. The minimum lot size is 10,000 square feet with a maximum building coverage of 60% and a height limit of 50 feet. The R&D District is intended to provide "areas for the location of high-technology, non-polluting manufacturing plants and related facilities in a campus-like setting." All R&D Districts are combined with a Design Review District to ensure a high quality, aesthetically pleasing environment. The design standards for R&D Districts vary depending upon their location. Parcels outside of established urban areas must be a minimum of 10 acres in size and can not be covered more than 10% by build-



ings. Parcels within urban areas may be as small as 10,000 square feet if served by community water and sewer, one acre or larger if required to accommodate a septic system or leach field, and 4.5 acres if both on-site water and sewer are required. Parcels within an urban area<sup>1</sup> may have a maximum of 50% building coverage. Landscaping and setback requirements within the R&D District vary depending on the type of treatment (i.e., narrow setbacks with extensive landscaping to wider setbacks with less extensive landscaping) but are intended to buffer proposed uses from adjacent roadways and parcels, and to improve the overall appearance of parking lots.

Agriculture and Natural Resource Management. El Dorado County's agricultural districts have been established for the purpose of promoting and encouraging horticultural and agricultural uses by 1) providing opportunities to increase their economic vitality and 2) by providing protection from the encroachment of unrelated uses. The agricultural districts include A-Agriculture, AE-Exclusive Agriculture, PA-Planned Agriculture, and SA-10-Selected Agriculture. Each of these districts allow for the raising of livestock, growing of trees, fruits, vegetables or other crops, the processing, packaging and sales of agricultural products, and the development of one single family home. The Planned Agriculture and Select Agriculture Districts are unique in that they are established based upon the agriculture suitability of the land, including such criteria as soil types, existing agricultural use and the location of the parcel in relation to surrounding land use. The minimum parcel size for Agriculture Districts is 10 acres, and for Exclusive Agriculture and Planned Agriculture is 20 acres (if a Planned Agriculture District is comprised of rangeland or woodlands then the minimum parcel size is 60 acres.)

There are several additional zoning districts which have been established for the purposes of open space preservation, conservation and resource management. The Open Space (OS) District provides for the essential open space needs of the county and applies to lands devoted to the preservation of natural resources, agricultural production, recreation areas and prime wildlife habitat, the protection from geologic hazard, and the protection of unique scenic values. The minimum parcel size in an OS District is 10 acres but this requirement may be waived to establish an open space easement for trails, paths or scenic buffers. Uses permitted include agriculture, timber production and one single family dwelling. The Conservation (CN) District provides for the conservation of essential resources including water, wildlife habitat, and food, fiber or mineral products suitable for economic production. The minimum parcel size is 10 acres, and permitted uses include agriculture, timber production and one single family residence.

A special Timber Preserve (TPZ) District applies only to those lands subject to the Forest Taxation Reform Act of 1976, and allows for the growing and harvesting of forest products, uses which are integrally related to timber production, the management of fish and wildlife habitat, and non-commercial recreational uses such as hunting and camping. In order to qualify for inclusion in the TPZ District, an applicant must submit and comply with an

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<sup>1</sup>Urban areas as defined in the Long Range Land use Plan, El Dorado County, 1981.

approved forest management plan and must meet the State's timber stocking standards and forest practice rules.

In order to provide for the orderly development and protection of lands containing mineral resources, El Dorado County has also established a Mineral Resource (MR) zoning district. This district allows for agricultural uses, the construction of one single family detached dwelling, and the prospecting for, and extraction of minerals so long as the necessary removal of overburden is less than 1,000 cubic yards and the excavation will not create significant erosion or pollution. Full scale mining, quarrying or excavating of minerals, including all processing operations, requires a special use permit from the county. The minimum size for parcels within the MR zone is 10 acres.

Those "land and water areas within the county which can accommodate one or more public recreation activities and/or public service facilities" without causing irreversible environmental effects have been designated as Recreation Facilities (RF) Districts. Such uses as parks, golf courses, snow play areas, marinas and other similar recreational uses are allowed upon approval of a completed site plan. The minimum lot area for the RF District is 5 acres.

Special Overlay or Combining Districts. The county has established three separate overlay or combining districts to provide special consideration for various unique circumstances. These districts include the Airport Approach Overlay (AA) District, the Design Control (DC) District, and the Planned District (PD). The Airport Approach Overlay District establishes regulations to ensure that new development and natural vegetation will not constitute hazards to air navigation, to minimize public exposure to airport related hazards, and to ensure that future development is compatible with anticipated airport noise levels. The regulations of this district apply to areas which encroach within the imaginary airport surface, airport safety areas, or areas subject to airport noise levels greater than a community noise equivalent level (CNEL) of 60 dBA or greater. The Comprehensive Land Use Plan for Airports establishes the primary land use compatibility guidelines for safety in such areas. Generally, the AA District establishes height restrictions and noise attenuation standards for residential uses within its boundaries. These restrictions are applicable in addition to the underlying zones district.

Special regulations are provided for the protection, enhancement and use of places or sites with special character, interest or value through the Design Control (DC) District. These districts are generally created in areas with special natural beauty or historical significance. The regulations of this district require that all structures be architecturally styled or designed to be compatible with the surrounding architecture of that district. All other regulations or the underlying zoning district shall also apply.

The final and most unique of El Dorado County's zoning districts is the Planned Development (PD) District. The purpose of the PD District is to allow for the use of modern planning and development techniques, utilize land more efficiently, aid in the reduction of development costs, encourage a more efficient use of public services, and to provide for a combination of different but complementary land uses. Applications for development within a PD District



(or a zoning change to a PD District) must include a comprehensive and detailed preliminary development plan. The Planning Commission reviews all preliminary development plans, including an accompanying EIR, and must make findings that 1) the development plan is consistent with the General Plan Update, 2) that it is designed to create a desirable environment, 3) that any exceptions to the standard zoning regulations are justified, 4) that the site is suited for the proposed use, 5) that there are adequate services available for the proposed uses and 6) that the proposed uses do not significantly detract from the natural land and scenic values of the site prior to approving the plan. The PD zone is used in combination with an underlying zone, such that the permitted land uses are limited to those listed in the underlying zone. This does not effectively allow opportunities for mixed use projects. The PD zone does not define a process by which to measure or judge the merits of individual projects. The findings the county must make to approve a PD development do not have an objective or quantifiable basis.

### Recommendations for Zoning Ordinance Revisions

A completely new ordinance is required. Existing portions should be built upon where appropriate, but significant new chapters will be developed. The first step in the preparation of the new ordinance will be to develop a logical structure, starting with a useful table of contents. The ordinance will have at least four major parts: General Rules for Ordinance Use, Zoning Districts, General Regulations (regulations which cut across zoning districts), and Procedures. A more detailed organizational structure will be presented in an approach memorandum which will be prepared after the land-use categories of the General Plan Update are determined.

A completely new definitions section will be prepared, other general provisions will be developed or revised as necessary, and the procedures will be revised as necessary. The new ordinance will reflect current California statutes.

Although a complete analysis of the zoning districts must await more work on the General Plan Update, some preliminary observations are presented below.

Residential Districts. Although the county does have 17 separate residential zoning districts, the majority of these districts pertain to agricultural or rural residential areas. As the demand for housing within the county continues to increase, public service and utility providers within the county may be faced with the costly expense of extending utility lines and district boundaries to accommodate this increased growth. An alternative to this pattern of suburban expansion (which will be thoroughly evaluated through the general plan process) consists of focusing new development to infill areas already surrounded by urban-type development. This approach would result in a more dense, urban type of development pattern.

Unfortunately, the county's current zoning ordinance provides relatively little diversity among urban residential districts, and is limited to 6,000 square foot parcels (R1 zoning), 21 units per acre density (R2 zoning) and 43 units per acre density (RM zoning). Recent development trends throughout the state indicate a growing market for more compact, zero lot line type units on lots as small as 4,000 square feet, so-called "urban estate" lots of 10,000 to 12,000

square feet, and multi-family townhouse developments at densities of 8 to 12 units per acre. While such development types could be accommodated within the county's PD zoning district, the approval process for development within the PD Districts is lengthy and somewhat cumbersome. The creation of additional urban residential zoning districts would provide for a greater diversity of housing opportunities within the county and help to streamline the review process.

The current basis for computing allowable densities within the county's multifamily residential districts is based upon minimum unit size standards. While such standards do provide an important aspect of zoning regulation, they do not provide an efficient means for establishing the maximum number of units which can be developed on a given parcel. Reliance is placed on the general plan for determining actual density. A more efficient approach, which can also be more adaptable to changing demographic and market conditions, is to establish general categories of residential densities (i.e., high density, medium density, and low density urban residential) within the general plan, and utilize the zoning ordinance to provide a more distinctive breakdown of actual numbers of units allowed per acre.

Commonly used density categories include six dwelling units/acre, 15 dwelling units/acre, and 20 dwelling units/acre.

Commercial. State Highway 50 serves as the primary transportation corridor through El Dorado County, carrying as many as 24,000 vehicles per day. An extensive variety of commercial services are economical and vital to serve the needs of this traveling public, including restaurants (especially fast food), service stations, motels and hotels, and other similar highway oriented uses. However, these types of uses are not necessarily the same types of commercial operations which help to vitalize a community's downtown, or which help to serve a local neighborhoods commercial needs. Each of these types of commercial characteristics can be individually described in terms of preferred uses, desired setbacks, allowable building intensities, landscaping requirements, etc. in a way which can create distinct commercial areas catering to the specific needs of that location. Currently, the county's zoning ordinance does not provide for such distinct variations in land use and development standards.

One of the most commonly used functions of a zoning ordinance is establishing a maximum allowable development intensity, whether it be in terms of dwelling units per acre for residential use, or in building square footage for commercial uses. According to the county's current ordinance, the procedure for determining maximum building intensity in commercial zones is a function of a variety of variables including required parking spaces, landscaping and setback requirements, maximum building coverage, and height limits. This procedure makes it difficult not only for a developer to understand his potential development rights, but it is also difficult for the planning department and public service providers to accurately predict the anticipated demands for services, roadway improvements, and utilities. One method which is commonly utilized by other jurisdictions is the establishment of maximum floor to area ratios (FARs). FARs are expressed as a ratio between the maximum size of a building (in gross square feet, and as a sum of the area of



all building floors) versus the size of a parcel. For example, an FAR of 0.5 would allow for the development of a 5,000 square foot building on a 10,000 square foot lot. It may be in the form of a one-story, 5,000 square foot building, or a 2-story building with a "footprint" of 2,500 square feet. By carefully constructing FAR limits to be compatible with parking, landscaping, height and building coverage requirements, this additional regulation can assist prospective developers in quickly understanding their potential development rights, and can also be used by planners and service providers in more accurately predicting future development intensities.

Landscaping of commercial and industrial areas is one of the quickest, most beneficial methods of improving or creating an attractive, pleasant community. As currently regulated, only the Planned Commercial, Professional Office, and Research and Development zoning districts contain provisions for required landscaping.

Although many business proprietors will install landscaping amenities to improve their commercial appeal, a more comprehensive landscaping requirement can help El Dorado County maintain and improve an attractive visual appearance.

Industrial. In today's age of high technology and industrial development, one unfortunate yet very real by-product is the creation of hazardous or toxic substances and waste material. Although a wide variety of environmental and public health safeguards are in place through ordinances, state laws, and federal regulations, many communities and jurisdictions have determined that such potentially hazardous industries are either not appropriately located in their jurisdiction, or should be sited in locations which are adequately buffered from other, non-compatible uses and designated specifically for heavy or hazardous industries. El Dorado County should consider the appropriateness of such uses within the county and determine if a new zoning district should be established for its regulation and siting.

County planning staff will also be working on the preparation of three separate ordinances which pertain to current, critical county issues. These three ordinances include a sign ordinance, a Highway 50 viewshed ordinance, and a multi-family housing ordinance. When staff completes these ordinances, they will be incorporated into the new zoning ordinance package.

## **2.4 TRPA Plans and Ordinances**

In 1980, the states of California and Nevada adopted an interstate compact and established the Tahoe Regional Planning Agency (TRPA). TRPA was conferred with the power to establish environmental threshold carrying capacities, and to establish and enforce a regional plan and implementing ordinance. These regulations and plans intend to provide for orderly growth and development within the Tahoe Basin which would be consistent with the carrying capacity of the area. Pursuant to this charge, TRPA has established an

environmental thresholds carrying capacity document, a regional plan for the Tahoe Basin, a code of ordinances, and a set of plan area statements.

Environmental Threshold Carrying Capacity. According to the TRPA compact, an environmental threshold carrying capacity means "environmental standards necessary to maintain a significant scenic, recreational, educational, scientific or natural value of the region, or to maintain public health and safety within the region." Specific standards have been adopted for the following components; air quality, water quality, soil conservation, vegetation preservation, noise, wildlife, fisheries, scenic resources and recreation. Generally, these standards are in the form of numerical standards (i.e., reduce dissolved inorganic nitrogen loading to Lake Tahoe from all sources by 25% of the 1973-81 annual average, maintain ozone concentrations at or below 0.08 parts per million averaged over one hour) or are expressed as management standards (i.e., a non-degradation standard shall apply to significant wildlife habitat consisting of deciduous trees, wetlands, and meadows while providing for opportunity to increase the acreage of such riparian associations). Other types of standards are described as policy statements (i.e., it shall be the policy of the TRPA governing board in development of the regional plan to establish and ensure that a fair share of the basin capacity for outdoor recreation is available to the general public). These standards were formally adopted by the governing board of TRPA according to resolution 82-11.

Regional Plan, Goals and Policies. "The Lake Tahoe Regional Plan describes the needs and goals of the region and provides statements of policy to guide decision-making as it affects the region's resources and remaining capacities. The plan. . . provides for the achievement and maintenance of the adopted environmental threshold carrying capacities, while providing opportunities for orderly growth and development" (TRPA, 1985). The regional plan goals and policies document is organized similar to the county's general plan, and is comprised of a Land Use Element, a Transportation Element, a Conservation Element, a Recreation Element, a Public Services Element, and an Implementation Element. The Plan was approved and adopted in 1986.

Code of Ordinances. In order to carry-out and implement the goals and policies of the Regional Plan, TRPA has adopted a Code of Ordinances. This code is divided into more than 100 chapters which govern such issues as region-wide development potential (building allocation system, individual parcel evaluation system, and allowable land coverage), lot-specific issues (height limits, grading practices, density allowances, signs), building and construction standards (best management practices, design standards), and resource protection issues (shore zones, water quality, resource management). These ordinances, like ordinances for any jurisdiction, serve as the legal, governing regulations within the Tahoe Basin.

Plan Area Statements. The plan area statements provide a description of land use for 175 separate planning areas within the Tahoe Basin. Each statement includes a map of the plan area, specific policies for that area which are consistent with the goals and policies plan, and regulations such as would be found within a zoning ordinance. Within the El Dorado County borders, there are 28 separate plan area statements.



Relationship to County Planning. Each of the plans and ordinances described above will affect the growth and development of the Lake Tahoe Basin, including those lands within El Dorado County. The broad scope and purpose of TRPA, as empowered under the Compact, has had and will continue to have a major effect on the planning and land-use regulating authority of the county. However, the county is encouraged to enact local ordinances, rules, regulations and policies which conform to the regional plan. In fact, as provided for within the compact, "whenever possible without diminishing the effectiveness of the regional plan, the ordinances, rules, regulations and policies of the TRPA shall be confined to matters which are general and regional in application, leaving to the jurisdiction of (the county) the enactment of specific and local ordinances, rules, regulations and policies which conform to the regional plan."

The county's general plan and zoning ordinance update will be structured to conform with the regional plan for the Tahoe Basin, and will also include substantial sections which will allow the county to exercise more responsibility and authority for reviewing and approving activities now requiring TRPA approval.

The Circulation Element of the General Plan Update will also include the long-range plans for the county within the Tahoe Basin. The Tahoe section of the Circulation Element will establish the county's intentions and positions relative to the preparation of the Tahoe Regional Transportation Plan, which is anticipated to be prepared on a schedule parallel with the county's general plan.

## **2.5 Maps, Report Graphics and Sub-Area Boundaries**

The El Dorado County Surveyor Department stores a wide variety of mapped information. The starting point for describing these maps is the "Genge" maps (named after the consulting firm which originally prepared these maps in 1978). This series of 1" = 400' scale maps covers most of the western slope of El Dorado County, from the county line on the west, to slightly beyond the community of Pollock Pines on the east as shown on Figure 2.2. This set of approximately 140 maps identifies property lines, roads, railroad tracks, streams, rivers, waterbodies, and topography. The contour interval for topographic information is 20 feet. The Genge maps were updated in 1985 by Seiboldt Engineers.

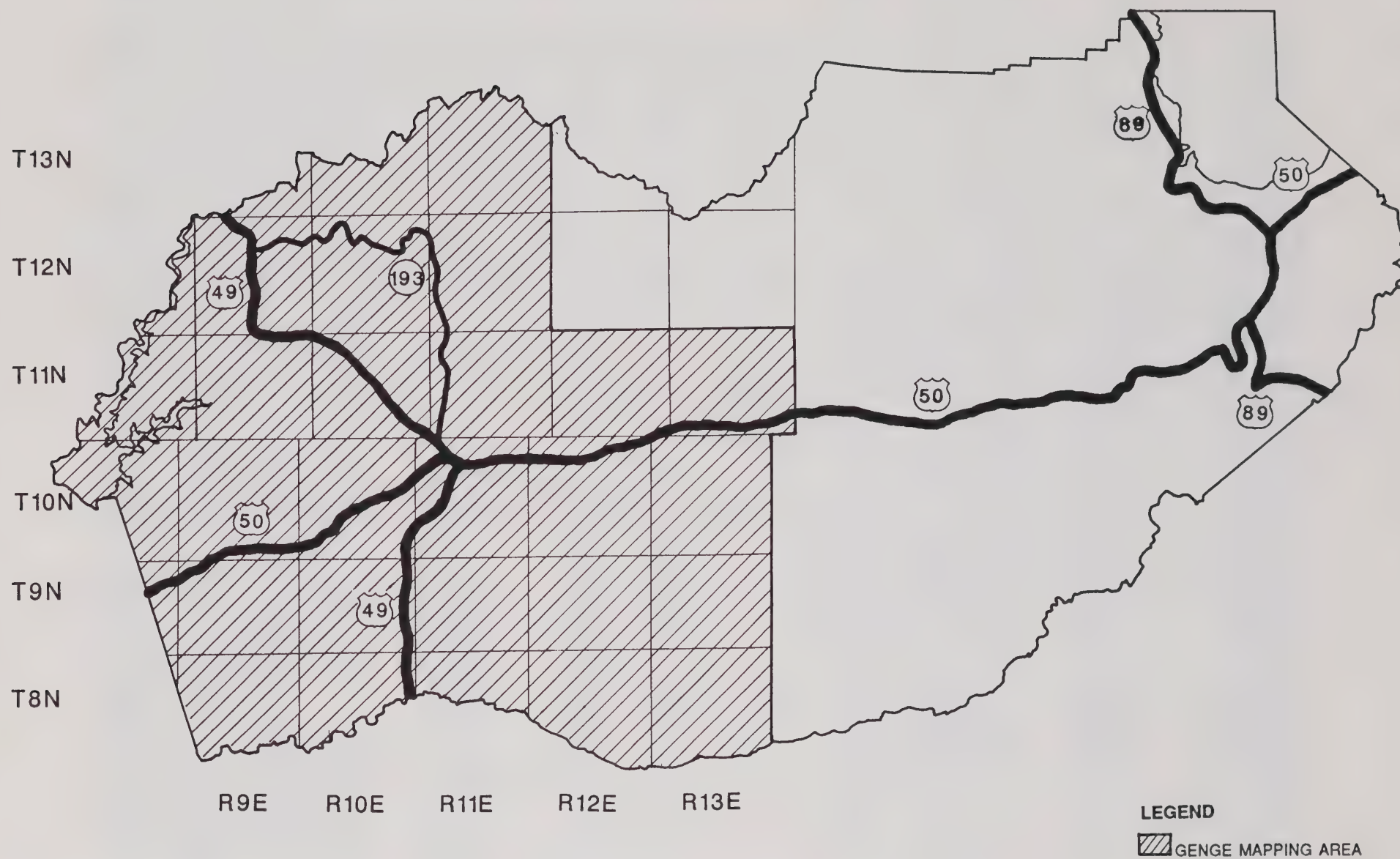
Accompanying this set of maps is a set of aerial photographs prepared at the same 1" = 400' scale. The majority of the aerial photographs are dated April, 1985, although a small section near El Dorado Hills is dated September, 1986. The area covered by aerial photographs does not extend as far east as the Genge maps. Both the Genge maps and the aerial photographs are on reproducible mylar.

The Genge maps have also been spliced together to create a second set of base maps for each of the 24 separate area plans. Depending upon the size of each planning area, the area plan base maps vary in scale from 1" = 600 feet to 1" = 2,000 feet. Current land use

Figure 2.2:

## EXTENT OF GENGE MAPPING SYSTEM

2-22





designations and zoning designations are prepared as overlays for these area plan base maps. The majority of these area plan base maps and overlays are on a reproducible sepia. The land use and zoning overlays are kept up-to-date by the surveyor's office. Amendments to the overlays are coded by a file number keyed to the original application.

The area plan base maps were combined with aerial photographs dated from 1977 to 1981 to create a series of photo interpretation maps. These maps identify a wide range of existing land use characteristics, including wetlands, pastures or crop lands, vegetation types, and houses or structures. The photo interpretation maps are a unique set of hand-colored originals which cannot be reproduced through a blue-print or diazo process. These maps are extremely precise although the information on them is 8 to 10 years old and may not be accurate.

The other base map which is available at the county surveyors office is a 1" = 1 mile map showing township, range and section lines, major county and state highways, rivers, and the location of most towns and communities. This base map has been used to create overlays showing census districts, plan area boundaries, county fire districts, school districts, community service districts, and a wide variety of other large-scale planning boundaries. A complete list of identified maps can be found in the Annotated Bibliography, Appendix B of this report.

The General Plan Work Program, as described in Chapter 7.0 and Appendix A of this report, identifies three separate map products which will be developed for the 2010 El Dorado County General Plan Update. These map products consist of: 1) a 1" = 1 mile base map, 2) an 11" x 17" report-sized county map, and 3) a set of 1" = 2,000' working maps for documenting land use data. Additionally, 1" = 400' scale maps will be used for working maps in the more densely developed, urban areas. The county's existing 1" = 1 mile base map will be used for the first map product. An appropriate legend and title block information will be added, and a reproducible mylar will be "screened" approximately 50% to 75% so that the background information is faded and the data to be portrayed on the map will be easily read. The small, report-sized map will be prepared from a reduction of this base map.

The third map product identified in the Work Program is a set of 1" = 2,000' scale working maps for recording land use information. This set of maps will be created by reducing each of the area plan base maps to a 1" = 2,000' scale, and then splicing each of these reduced maps together according to sub-area boundaries.

Although SCA has previously proposed that complete re-definition of planning sub-area boundaries should be established as part of the Work Program (Task 5.1), it appears that the county's current mapping system is very effective and well organized. A complete restructuring of planning areas may be an unnecessary and possibly counter-productive effort. However, the 24 separate planning areas will not be maintained in the general plan update process. Instead, we propose that the county consider consolidating groups of geographically and culturally similar area plan boundaries to form larger general plan sub-areas. This concept should be discussed and reviewed by the Policy Advisory Committee, the

General Plan Forum, and the Board of Supervisors. Our preliminary recommendation is that the general plan sub-area boundaries should be defined as follows:

Georgetown Divide subarea, consisting of the following area plans:

|                 |              |
|-----------------|--------------|
| American Flats  | Greenwood    |
| Cool/Pilot Hill | Kelsey       |
| Garden Valley   | Lotus/Coloma |
| Georgetown      | Volcanoville |
| Gold Hill       |              |

Lower Western Slope sub-area, consisting of the following area plans:

|                              |                       |
|------------------------------|-----------------------|
| Barnett Ranch                | Greenstone            |
| Cameron Park                 | Placerville Periphery |
| El Dorado/Diamond Springs    | Rescue                |
| El Dorado Hills/Salmon Falls | Shingle Springs       |

Upper Western Slope sub-area, consisting of the following area plans:

Camino/Fruitridge  
Finnon  
Pleasant Valley/Oak Hill  
Pollock Pines

South County sub-area, consisting of the following area plans:

Latrobe  
Somerset/Fairplay

South Fork of the American River sub-area, consisting of the following area plans:

American River Canyon

Tahoe Basin sub-area, consisting of all lands within the Lake Tahoe Basin Watershed.

El Dorado National Forest sub-area, consisting of all lands east of the Georgetown, Upper Western Slope and South County sub-areas and south or west of the Tahoe Basin sub-area.)

Figure 2.3 shows the recommended general plan sub-areas. By grouping the area plans into large sub-areas but maintaining the overall composition of area plan boundaries, the county's current mapping system can continue to be used. This existing base map system would be the most likely base to be used by the county when developing future zoning maps.



Figure 2.3:

# RECOMMENDED GENERAL PLAN SUB-AREAS



## LEGEND

- 1 AMERICAN FLAT/SPANISH FLAT/BEAR CREEK
- 2 AMERICAN RIVER CANYON
- 3 BARNETT RANCH
- 4 CAMERON PARK
- 5 CAMINO/FRUITRIDGE
- 6 COOL/PILOT HILL
- 7 EL DORADO/DIAMOND SPRINGS
- 8 ELDORADO HILLS/SALMON FALLS
- 9 FINNON
- 10 GARDEN VALLEY
- 11 GEORGETOWN
- 12 GOLD HILL
- 13 GREENSTONE
- 14 GREENWOOD
- 15 KELSEY
- 16 LATROBE
- 17 LOTUS/COLOMA
- 18 PLACERVILLE PERIPHERY
- 19 PLEASANT VALLEY/OAK HILL
- 20 POLLOCK VINES
- 21 RESCUE
- 22 SHINGLE SPRINGS
- 23 SOMERSET/FAIRPLAY/MT.AUKUM
- 24 VOLCANOVILLE

## 2.6 Availability of Technical Data

This section of the Reconnaissance Report consists of an appraisal of existing technical data sources. This appraisal discusses the types of data sources which are available, how this data can be utilized in the general plan process, and what additional research or data development (if any) may be necessary.

### Biology/Ecology

Several data sources were reviewed for a description of the county's biological resources. The material examined as part of this reconnaissance includes the area plans (1975-1985), the Long Range Land Use Plan (1981), the Eldorado National Forest Land and Resource Management Plan (1988), the Environmental Impact Statement (EIS) for the Eldorado National Forest Land and Resource Management Plan (henceforth collectively referred to as the Eldorado Forest Plan) (1988). It should be noted that many of the area plans may not contain up-to-date material, as they range in dates from 1975 to 1985. The County Open Space and Conservation Element of the General Plan was also reviewed for descriptions of the county's physical environment. Specific information analyzed include delineation and characterization of rare and endangered species, wetlands, riparian corridors, migration routes, natural areas, general vegetative and wildlife habitat, and management.

Rare and Endangered Species. The County Open Space and Conservation Element provides descriptive tables and figures (maps) indicating type and location of rare and endangered plant species in El Dorado County. It also provides a table on rare and endangered wildlife, which shows type, status, and abundance of species. The area plans appear thorough in their discussions of known existing rare/endangered plants and animals. However, with the exception of the Rescue Area Plan, they lack specific information on population locations and diversity. For example, some plans indicate that species are likely to be found in a specific habitat such as riparian or woodland, while others indicate that rare/endangered species within the plan area(s) may exist in a particular location, such as the northwestern or southern portion of the plan area. The Eldorado Forest Plan provides detailed information and lists of rare and endangered species. Location and diversity is discussed more thoroughly than in the area plans.

Additional information on diversity, location and numbers of rare and endangered plants, animals, and natural communities in El Dorado County will be obtained from the Department of Fish and Game through the Natural Diversity Data Base. A computer read-out with map overlays for each area requested can be provided. Database information will be available starting January, 1990. The Natural Diversity Database is updated constantly, and contains the most complete information in the state on rare and endangered species.<sup>2</sup>

Wetlands. The only data source for this resource is the Goudey maps of the western slope, which show riparian habitats, oak groves, and other natural community locations. These

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<sup>2</sup>K. Flemming, Department of Fish and Game, 1989.



maps are available at the County Surveyors Office are assumed to be adequate; no other data will be gathered.

Riparian Corridors. The data sources for riparian corridors are the Goudey maps described above and the Eldorado Forest Plan. ERC Environmental and Energy Services (ERCE) will conduct limited field visits to verify more significant corridors.

Migration Routes. Of the documents researched, only three area plans (American River Canyon, Lotus/Coloma, and Somerset/Fairplay) and the Long Range Land Use Plan generally discuss migration routes. More specific data have not yet been identified.

General Vegetative Communities and Wildlife Habitat/Diversity. There is adequate available information to characterize the county's vegetative and wildlife habits. The Goudey maps will serve as the primary data, with the area plans providing more detailed vegetation and wildlife data for each plan area. The area plans, however, are uneven in their discussion: sometimes providing comprehensive lists and sometimes providing text on the mammals, fish, reptiles and birds, and their habitats. The Eldorado Forest Plan also provides information, including lists and a full appendix on vegetation and wildlife on the Eldorado National Forest. Although the area plans treat general vegetative and wildlife community information unevenly, the information presented is adequate overall in terms of species and habitats identified. The County Open Space and Conservation Element provides only general information on the vegetative and wildlife habitat of El Dorado County. The Open Space and Conservation Element does provide data on fisheries in the county and includes numbers of species, acres of lakes and reservoirs, and miles of streams within the county.

## Hazards

Documents analyzed for hazards data include the Seismic Safety and Safety Element, the Noise Element, the Area Plans, the Long Range Land Use Plan, the Eldorado National Forest Land and Resource Management Plan and its related EIS and Appendices (Eldorado Forest Plan), and the Cameron Park Watershed Area Study (1985). These documents were reviewed for data on geologic/seismic hazards, floods, wildland fire, noise, and hazardous materials.

Geology/Seismology. (This category includes: seismic characteristics, faults, landslides/mudslides, liquefaction, steep slopes, erosion hazards/bluffs, groundshaking, soil shrink swell and compaction, soil adequacy for septic systems, management). The Seismic Safety and Safety Element of the County General Plan contains data on geologic/seismic hazards. However, the information is not detailed or location-specific. The hazard maps presented in this element are from statewide maps. These maps are not suitable for making planning decisions because of their lack of detail. More detailed, up-to-date fault and landslide data should be obtained. ERCE will contract with the USGS and the California Department of Mines and Geology to supplement the existing data base. The Eldorado Forest Plan discusses faults, landslides/mudslides, high erosion hazard/bluffs, soil shrink swell and compaction characteristics.

Floods. (This category covers 100 year floodplain/floodways, level safety, dam inundation, management). Flood data in the Seismic Safety and Safety Element are too generalized for use in making land use decisions. The mapped data, from a statewide map, should be used as a general information map, with more specific information derived from the Federal Emergency Management Administration (FEMA) Flood Insurance Rate maps. The Cameron Park Watershed Study provides an excellent resource for flooding information within this specific area.

Wildland Fires. (Hazard zones, protection responsibility, access, response times, water, number/severity, management are included in this category). The Seismic Safety and Safety Element provides statistical information on wildland fires and identifies responsible agencies for fire fighting. Information regarding acres burned, and major fire areas needs to be updated, and fire hazard zones as recently delineated by the California Department of Forestry need to be incorporated. Fire hazard zones are identified in eight of the area plans, although none of the plans contain statistical information on severity and numbers of fires. The Eldorado Forest Plan discusses fire management and include some statistical information on number and severity on the forest.

Hazardous Materials. Hazardous materials and waste are recognized in the Seismic Safety Element but little detail is provided regarding amounts used, generated, stored, or disposed. It is expected that the County Hazardous Waste Management Plan (as required by Assembly Bill 2948) will contain this data.

Noise. Noise characteristics and specific sources in El Dorado County are addressed in the element adopted in 1979. This element has a time horizon of 1995, so that future conditions at the various noise sources need to be updated. In addition, existing community noise levels are not described. In order to develop adequate new baseline information, CALTRANS and the airports will need to be contacted to obtain existing and future levels of operation on state highways and the airports, respectively. It is assumed that monitoring of existing community noise environments will not be required and that they can be generally categorized by their level of development and density. The Sheriffs Department will be contacted to identify specific noise issues or sources. Future noise contours on major roadways will be based on the state Office of Noise Control nomograph and Federal Highway Administration Stamina 2.0 noise model. Future airport noise contours will be based on interviews with the airport operators. Information on noise issues and exposure from fixed sources will be based on data collected by the Planning Division and Environmental Health Department as described in the county's existing Noise Element.

#### Natural/Productive Resources

Natural/productive resources of El Dorado County include minerals, agriculture, forestry, and water. Documents surveyed for information on these nonrenewable and economic resources include the area plans, the Long Range Land Use Plan, the Eldorado Forest Plan, the El Dorado County Department of Agriculture 1988 Agriculture Crop Report, three open files from the California Department of Mines and Geology, and the Open Space and Conservation and Seismic Safety and Safety Elements of the County General Plan.



Minerals. (This category looks at type, location, quality, extraction quantity, value, management). The primary data sources will be reports by the Division of Mines and Geology and the Open Space and Conservation Element. The Division of Mines and Geology Open File reports contain text and maps on mineral types and locations within the Folsom, Auburn, and Georgetown quad portions of El Dorado County. The Open Space and Conservation Element of the County's General Plan provides tables which describe kinds, locations, and general quantitative descriptions of minerals. The County has mapped potential areas for mineral production. In addition, the County has mapped existing known extraction sites. While this map is at a small scale, it still shows vicinities in the County which contain potentially significant mineral resources. These sources are adequate for showing and characterizing the county's principal mineral resources within the specified areas. Additional open files from the Division of Mines and Geology will be examined to identify significant mineral resources in other portions of the county, including the Placerville, Camino, and Saddle Mountain Quads.

Many of the area plans present historical information on gold, although some discuss contemporary mining to a small degree. The area plans contain no information on the quality, quantity, value, or management of any mineral resource historically or recently.

The Eldorado Forest Plan contains information on mineral type, location and management. The EIS for the Forest Plan contains information on type, location value, and management, with a complete Appendix (J) which includes detailed information on these resources.

Agriculture. (Grazing land, crop production, prime soils, agricultural preserves, value, minimum lot sizes, management are discussed in this category). Existing agricultural information is adequate based on a review of the following reports. The USDA Soil Conservation Service maps and text provide information on soil types, their capabilities and suitability for agriculture, and their locations within El Dorado County. The Open Space and Conservation Element provides tables and figures depicting agricultural uses and crop types for the county, as well as a description of useable soil types for agriculture. The Long Range Land Use Plan discusses agriculture preserves, acreages, crop types, management, as well as Williamson Act Land, and choice lands identified by the USDA Soil Conservation Service. The Eldorado Forest Plan contains grazing land information. The El Dorado County Department of Agriculture 1988 Crop Report contains information on crop production and value, and includes statistics and charts. Maps are available from the county which show agricultural land on the western slope of El Dorado County.

Forestry. (Types, quantity, value, location ownership, TPZ, boardfeet/year, management are important in this category). The Eldorado Forest Plan and the 1988 Crop Report collectively contain complete information on all aspects of timber. The Open Space and Conservation Element provides a figure of timberland preserves and gives preserve acreages, as well. Additional figures and tables indicate commercial sale types, board/ft./year, value, acreages and management.

Water. (This category covers annual precipitation, rain/snow run-off, watersheds, river/streams, lakes, aquifers management). Information reviewed would not enable an adequate discussion of the county's water resources. The State and Local Regional Water Quality Control Board will be contacted for any basin plans for the western slope. Most of the area plans have data on annual precipitation and watersheds. The Eldorado Forest Plan presents adequate information on water systems including rivers/streams and lakes in the forest. The Open Space and Conservation Element describes major watersheds in El Dorado County by location and associated rivers.

#### Air Quality

Documents reviewed for air quality data include the area plans, the Long Range Land Use Plan, and the Eldorado Forest Plan. Most of the area plans and the Long Range Land Use Plan contain some information on air pollution sources, air quality measurements, and community exposure, but nothing on air emission reduction strategies or management. The Eldorado Forest Plan contains information on sources, measurements, community exposure, and management. The El Dorado County Non-Attainment Plan of 1978, along with the Lake Tahoe Basin Non-Attainment Plan of 1979, will be relied upon for strategies and detailed information.

#### Transportation

Omni-Means has reviewed existing information which will be used to prepare the circulation element of the 2010 El Dorado County General Plan Update. This review focuses on the availability and usefulness of the existing information.

El Dorado County has recently developed a draft Circulation Element to address the transportation needs of the county's existing general plan. The Circulation Element is less than six months old and all of the information is current and applicable to the General Plan Update. The Circulation Element provides a comprehensive discussion of existing transportation conditions in the county and addresses streets and highways, public transit, aviation, freight movement and non-motorized transportation. The information provided in the Existing Conditions section of the Circulation Element will provide the foundation of the existing conditions analysis of the General Plan Update.

Traffic counts, as presented in the Circulation Element, cover the entire county (with the exception of the Tahoe Basin); it is unlikely that an extensive traffic count program will be required as a part of the General Plan Update. Additional traffic counts will be obtained from CALTRANS and the El Dorado County Department of Transportation.

The Circulation Element also identifies all major roadways in the county and provides a level of service for these roadways for a base year of 1985. The level of service calculations will be reviewed with special attention paid to the analysis methodology. It appears as if the analysis assumptions documented in the Circulation Element differ from the assumptions documented in the Western Slope Model Development Report.



Additional needed information includes accident information and identification of areas planned for improvement. El Dorado County subscribes to the Statewide Integrated Traffic Records System (SWITRS) and, therefore, accident history information will be readily available. Areas planned for improvements will be identified from the Regional Transportation Plan, the U.S. 50 Relinquishment Study and the State Transportation Improvement Plan.

Omni-Means has also made a cursory review of the traffic model developed for the western slope of the county. (A more in-depth review will be included within the Baseline Conditions Report.) The model development and assumptions are very well documented. The usefulness of the model in projecting future traffic is a source of some concern, though. The model was not calibrated on a link by link basis, but rather on a cut-line basis. To set up a link by link model, future traffic projections are derived from current volumes and expected volumes. While this method is appropriate for existing roadways, the transportation analyst must set volume levels for any future, planned roadways.

The original model was based on very limited socio-economic data. Population estimates were used to develop trip generations, but no corresponding data (either employment, or non-residential land uses) was available for determining the attraction side of each trip. Rather, attractions were estimated, and then refined in the calibration process. The model documentation specifically discusses this weakness.

To develop future projections, the model does include trip attraction equations. However, these equations lack refinement to El Dorado County and were not used in the original traffic analysis model.

The general plan update provides an excellent opportunity to develop the data necessary to develop a land-use driven travel demand model. This type of model would look at the existing and future land uses and the demand each type of use would generate. For example, a commercial use would attract more trips than an agricultural use. Because land use data is easily available, it is recommended that the model use land-use rather than population and employment data. For example, the number of dwelling units proposed in a new subdivision is more readily available than an estimate of the proposed population of the subdivision. Likewise, the square footage and/or acreage of a commercial, industrial or office development is often more easily determined than the number of employees. A complete inventory of existing land uses will be required for use in calibrating the model. This land use inventory will be conducted by the General Plan Team during the next phase of the general plan process.

The geography which will be used in the model development should be established according to Traffic Analysis Zones (TAZ). The TAZs have yet to be established, but will likely be very small geographic areas (larger in the more rural and undeveloped areas of the county and small in the developed and developing parts of the county). The TAZs should be dis-aggregations of existing general plan sub-areas, and should aggregate to census enumeration districts if at all possible. This allows one to compare the model results to census information and to easily update the model when new census information is available.

## Water and Wastewater Infrastructure

The scope of this data appraisal effort consisted of an assessment of those maps, reports and data collected in meetings with the Georgetown Divide Public Utility District (GDPUD) and El Dorado Irrigation District (EID), and through communication with other utility purveyors (El Dorado County Water Agency and the Grizzly Flat Community Services District). Water systems under county jurisdiction and non-public wastewater systems were excluded from our review.

To the best of our available information there are no special districts or other political subdivisions within the county which are presently exercising jurisdiction over flood control and drainage works, other than the county itself and the usual state and federal authorities.

Many of these agencies' planning documents are presently being revised and are not yet "public documents" -- lacking review and adoption by the appropriate governing board. This is particularly true for water source and supply planning. There is also some uncertainty about which agency will take the lead (EID and GDPUD individually or the County Water Agency collectively) in developing new water sources. Acquisition of water rights is a central theme in all new water source issues and is potentially a serious hurdle in all major new source proposals.

For GDPUD, a major new water supply study is presently in draft form. EID recently (January 1989) completed an evaluation of water supply alternatives which identified several potential projects which could meet the projected supply needs of the district through the year 2020. It should be noted that the study assumed water rights and environmental considerations would not hinder project implementation when scheduling project delivery dates. Grizzly Flat Community Service District also recently completed a look at future water supply issues, but not in the same level of detail. The County Water Agency is currently in the process of studying future water supply projects to meet projected population increases.

In 1981, EID completed both water and wastewater system master plans. These plans forecast future population with corresponding water demands and wastewater production. Specific 5-year improvement programs were identified to meet this anticipated growth. Since these plans are eight years old, they are considered outdated for providing accurate current planning information.

It is important to note that most, if not all, of the individual agency planning documents utilize the County General Plan and Zoning Ordinance as guidance for determining population projections. These population projections formed the basis for the locations and density of future services, sizing physical improvements, and locating new facilities. Significant changes in the general plan assumptions or zoning allowances would render these individual planning documents inaccurate. Water and wastewater facilities which have been sized to allow for future capacity may not be able to provide sufficient service with different general plan and zoning uses and densities.



Information regarding the description of existing facilities is available, although each District needed additional time to compile system maps and design reports. This information will be relied upon to prepare the existing conditions report.

A general conclusion regarding the quality of the existing infrastructure data is that planning for water supply is presently underway but not yet complete. Lack of sufficient water source facilities is recognized as a major, if not the most significant limitation of future growth. Long-term planning for other water facilities such as raw water transmission, treatment, finished water transmission, storage and distribution, and wastewater collection treatment and disposal facilities is rarely conducted, but is instead driven by service shortages. When existing facilities near their design capacity, specific planning for new facilities is done as a first step towards facility design and construction. With the exception of the out-of-date master water and wastewater plans prepared by EID, comprehensive facility plans for water and wastewater facilities do not exist.

## **2.7 Data Management**

The completion of the El Dorado County General Plan Update will involve the creation, use, and maintenance of a substantial amount of data, including data related to land use and development activity, demographic profiles and changes, public service capacities and plans, and financial capabilities and economic trends. This section of the Reconnaissance Report provides an overview of how these data items will be integrated into the El Dorado County General Plan Update effort. Data base objectives and sources are addressed along with a program that provides additional direction to the consultant Work Program and county staff efforts.

The ability to obtain, use, and maintain large quantities of statistical and graphic information is an essential component of a general plan. Such data is necessary to understand, in quantitative terms, "where we are" today and "where we are going". Without such information it is very difficult to establish good policies and programs that achieve planning, environmental, and economic development goals. Data in an accessible form also facilitates the process of understanding the effects of alternative land use patterns and development policies. Finally, good data is also necessary to monitor development to assure that future development is consistent with the policies and programs set forth in the general plan.

### Data Base Objectives

A variety of data base objectives are explicitly or implicitly identified within the El Dorado County General Plan Work Program. The county has recognized that data base deficiencies, including inconsistent and out-of-date base maps, lack of adequate land use and demographic statistics, and lack of comprehensive public facility and environmental constraint mapping are major problems that limit the effectiveness of land use planning in El

Dorado County. The following data base objectives are directly related to the completion of various aspects of the general plan as it develops.

Measure Baseyear Land Use. It will be necessary to generate graphic and statistical data that reflect existing land use patterns within the county. Ideally, mapped information should be compiled on a consistent scale base map. Statistical information should define acreages, units, and square footage of various land use types by "traffic zone" with the county.

Identify and Document Infrastructure Capacity. The physical capacities of public facility infrastructure maintained by county agencies and special districts throughout the county must be documented, along with expansion plans, incremental service costs, and funding sources. The physical extent of infrastructure should be mapped and then quantified by each public service agency.

Prepare Environmental Constraints Maps. Environmental constraints such as flood hazard, steep slopes, unstable soils, and sensitive habitats should be mapped at a consistent scale.

Prepare Baseline Land Use and Demographic Projections. A forecast of land use demand and related economic and demographic variables should be prepared that reflects unconstrained market trends and existing land use regulations.

Develop Land Use Allocation System. A methodology should be developed to distribute future land use based upon alternative growth projections and/or land use policies. The allocation system should include a mapped expression and a statistical expression. The allocation should also specifically incorporate existing built vacancies, "pipeline" projects, and vacant zoned capacity, documented by "traffic zone".

Prepare Land Use, Demographic, and Economic Statistics. The Land Use Allocation System will permit the development of detailed land use, demographic, and economic statistics by "traffic zone". This data will be used to drive a variety of analytical models which will be utilized in the General Plan Update process and the preparation of the EIR, including the traffic model, the fiscal model, the financing model, and the air quality model.

Implement a Development Monitoring System. The county has determined that a Development Monitoring System should be prepared as part of the general plan program. All graphic and statistical data gathering should be conducted in a manner that reflects the structure and function of the Development Monitoring System. Implementation of the Development Monitoring System will require a significant long term commitment of resources on the part of the county beyond the scope of the General Plan Work Program, including both information management system development, data gathering, and maintenance. The development monitoring system should comprise one of the many potential uses of a county-wide GIS.



## Data Base Sources

A variety of data sources exist that will assist in achieving the data base objectives listed above. Our review of data suggest that the objectives can be achieved with the creative use of existing data sources and selected additional data. However, a good deal of consultant and staff time will be required to convert data sources into useful information tools.

Assessor's Parcel Records. The county maintains its Assessor's Parcel Records in a large, accessible computer data base. Parcel sizes, jurisdictional boundaries, and use code information are all available. This information can significantly contribute to the determination of baseyear land use, as well as other aspects of development monitoring and enforcement. Discussions with Assessor's Department staff suggest a capability and willingness to assist the Planning Division with its data base efforts. The Assessor's Department has the data management capabilities to manipulate and "off load" computer files for manipulation and analysis.

Permit Tracking Data. The county has instituted a permit tracking system that provides excellent information regarding building permits issued by the county. This information can help with the assessment of development activity.

West Slope Traffic Model Data Set. A land use data base was created during the preparation of the West Slope Traffic Model. This land use data, organized by "traffic zone" was not, in all instances, based upon actual land use measurements, however, it does provide a comprehensive estimate of existing development that can serve as a basis of further analysis.

Genge Maps (1" = 400'). Parcel maps for much of the county at a scale of 1" = 400 feet were prepared by Genge, Inc., a company specializing in such mapping. These maps were based upon photo enlargements of USGS 7.5 minute Quad maps upon which parcel lines, derived from assessor's parcel map books, were transcribed. The Genge maps are several years out of date, although the Department of Transportation has continuously updated the parcel information on a set of Genge maps that it maintains to document the county road system and street addresses. The Genge maps should serve as the basis of detailed land use analysis and geographic allocation.

Various Topical Maps. Numerous topical maps exist for the county or sub-areas of the county that contain information useful to the general plan effort, including maps prepared for the area plans, service area maps prepared by special districts, and maps prepared by other levels of government (e.g. Forest Service, FEMA, USGS, Soil Conservation Service, etc.).

State and Federal Agency Data. State and federal agencies maintain data at the county level that will be useful, including State Department of Finance forecasts, BLS data, and Census Bureau Data.

County Budget and Financial Data. County Budget and other financial information, such as various Controller reports will be used as a basis of fiscal and financial analysis.

County Agency and Special District Capital Improvement Programs and Plans. County agencies and the special districts all maintain service data and maps and more or less formal capital improvement plans. This information will assist in the determination of the public service infrastructure capacities.

#### Data Base Program

The data base reconnaissance effort focused upon determining what data sources were available to meet the data base needs and objectives associated with the El Dorado County General Plan Update. The following tasks prioritize and specify the data base related efforts.

Proceed with the GIS Effort. The county should independently proceed with implementation of a GIS. The ongoing pilot effort conducted by the surveyor has demonstrated the level of effort that may be required to implement a GIS, and has given county staff hands-on experience with several GIS. The overwhelming benefits of the GIS to nearly all aspects of county government, makes an immediate implementation timely.

The general plan data effort should be conducted in a manner that is ultimately consistent with a future county-wide GIS so that the data can be integrated at the appropriate time.

A major effort will be required to generate accurate parcel maps for the GIS. The existing Genge maps parcel datum are inaccurate therefore requiring reference back to the actual survey maps.

Geocode Assessors Parcel Records by Traffic Zone, Census Tract, and Land Use Designations and Zoning Districts. An effort should begin immediately to "geocode" Assessor's Parcel Records with "traffic zone", Census Tract, and land use designations and zoning districts. This is a labor intensive effort involving the use of the Assessor's Parcel Map books upon which the topical boundaries are transcribed. Parcel strings with unique "geopieces" are listed on a transmittal sheet which is then added to the Assessor's Parcel Records. Once accomplished, this geocoding will allow special printouts of the Assessor's Parcel Records reflecting subsets of the added geographic variables. For example, it will be possible to determine how many existing single family units there are in a given "traffic zone".

Implement a "Pipeline" Project Tracking System. The county should immediately purchase required software and begin tracking all projects subject to discretionary permits by the county. The data for such a system is already gathered on the various application forms used by the county. The additional step would involve keying information into a computer, managing this data, and producing various reports. A number of reasonably low cost "off-the-shelf" applications are available for project tracking.



Prepare Baseline Land Use and Demographic Projection. The market analysis that will be conducted for the general plan, in combination with information and projections available from the State and federal governments, will assist in preparation of a "baseline" projection. This project will indicate "where the County is heading" under existing market forces, growth trends and land use policies. This information is necessary to determine what, if any, changes are needed to achieve the policies of the new general plan.

Public Facilities Data Base. The public service capacity information should be documented on maps as well as in an accessible data base format. This format should be developed prior to the time the data gathering effort is conducted.

Mapping System and Topical Overlays. A set of working maps should be developed at the 1" = 2,000 foot scale. These maps should be used as the common scale for all constraint overlays and land use allocation mapping. Such a scale will permit subsequent input into the GIS.

Land Use Information System. A computerized Land Use Information System will be developed during the development of the general plan. The Land Use Information System will be developed using a data base management program such as *Rbase* or *Progress*. This system will permit manipulation of land use and project data at the "traffic zone" level. The system may have long term usefulness to the county as a part of its development monitoring activities.

A detailed system design for the Land Use Information System which will allow county staff to utilize and access the data base should follow an overall data system evaluation and review. This system review should be conducted when other aspects of the county's data system, including the GIS, the permit and project tracking systems, and the Assessor's Parcel Record Interface System themselves are more fully developed.





### **3.0 PERCEPTION OF MAJOR PLANNING ISSUES IN THE COUNTY**

During this initial reconnaissance phase of the general plan process, the planning team has focused a great share of their efforts on learning about El Dorado County and becoming familiar with the major issues which will likely affect or influence the General Plan Update. This process of learning about the county has been facilitated by the following:

- An Expectations Workshop held on August 31, 1989 provided a forum for the County Board of Supervisors, the Planning Commission, various county departments and agencies, and the public to express their expectations of this general plan process, to discuss major issues affecting the county, and to provide guidance to the planning team.
- An interview questionnaire was distributed to all major public service providers, county, federal and state government agencies, and organized community groups. The questionnaire was designed to elicit responses pertaining to problems and issues within the county, recommend geographical divisions or sub-areas, and discuss methods of presenting information within the Plan. Twenty-seven of these initial survey questionnaires were returned.
- Due to a strong interest expressed by the citizens of the county, an additional citizens survey questionnaire was developed and made available through the Planning Division of the Community Development Department, public libraries, and various other distribution centers. This questionnaire was designed to elicit responses pertaining to problems and issues in the county, recommendations regarding future growth within the county, suggestions for county policies and ordinances, and advice regarding how to best involve the public in the planning process. County staff received approximately 54 responses to this questionnaire.
- Thirty-five separate interviews were conducted with various county officials, community groups, public service providers and local, state and federal agencies. These informally structured interviews provided an opportunity for the planning team to gather a wealth of data and background information. They also provided an opportunity for the team to hear directly from many of those persons who are daily involved in many of the key issues facing the county. The complete list of persons interviewed during this process can be found in Appendix C of this report.
- Ed Crowley, Principal Planner, has accepted numerous speaking engagements at locations throughout the county to discuss with citizens the expectations and anticipations of the General Plan process and to listen to their concerns and opinions.

By assimilating and organizing the information obtained through these reconnaissance efforts, a list of major planning issues which are facing the County has been developed.

This list has been supplemented by the planning team's own personal observations and professional perspective. The following section of this report contains a discussion of the perceived major planning issues in the county.

### **3.1 Land Use and Development**

Perhaps the most significant planning issue which El Dorado County will face in the near and long-term future is the continuing process of development and urbanization. This process has already begun to take place in such areas as El Dorado Hills and Cameron Park. The rural, agriculturally-based character of the county is quickly being replaced by a more urbanized landscape containing shopping malls, densely clustered housing developments and wide, heavily trafficked roadways. This urbanization is the result of many factors, but the two most prominent influences on the county are the strong economic growth within Sacramento and the recognition of El Dorado County as a highly desirable place in which to live and work. In a recent report, Rand McNalley has described the City of Sacramento as one of the fastest growing cities in the nation. As the capitol of the State of California, the city has a large and growing government work force. Sacramento's access by rail, highway and navigable waterways has led to an expanding trade and commerce industry. Employees of these and other industries have created an almost insatiable demand for new housing opportunities, a demand which cannot be met within the City and County of Sacramento alone. As one of its closest neighbors, the western slope of El Dorado County has recently emerged as one of the favorite residential locations for Sacramento's expanding labor force.

The other major factor contributing to urbanization is El Dorado County's own unique appeal. As residents from California's larger metropolitan areas (Orange County, Los Angeles, and the Bay Area) become disenchanted with the inherent pollution, congestion and stress, more and more people (and businesses) look for an escape or release to cleaner, less populated locations. El Dorado County's natural beauty, rural lifestyle, and small-town characteristics make the county an ideal choice for these "urban refugees." Ironically, it is these very same values which are most jeopardized by the rapid rate of growth.

The distribution of future growth is likely to become a major determinate of the county's ability to maintain and preserve its rural character. The planning team has heard many county residents express the opinion that the majority of future residential growth should occur on five acre minimum parcels. Clearly, this type of development pattern would preserve many of the characteristics of rural life, yet the costs of such a development pattern in terms of infrastructure financing, affordable housing, open space preservation and other factors may outweigh its many benefits. Another common theme expressed during our interview process is that the county should develop as a system "community clusters." Under this theme, certain existing (or possibly new) communities would be designated as residential or community centers. Within these centers, relatively higher densities would be permitted. Radiating out from the core, densities would decrease according to the availability of roads



and infrastructure. Each of these community centers would be linked through a system of open spaces and a transportation network. By clustering a large percentage of future residential growth within these community centers, a greater share of the county can be maintained for open space, wildlife habitat and agriculture.

Another factor which is all too common in rapidly urbanizing areas is a general process of homogenization. Indiscriminate, often featureless development can quickly erode a community's "sense of place" or identity. The history of land use planning in El Dorado County is based primarily on a series of 26 separate area plans. Although these area plans may have resulted in an inefficient, inconsistent method of land use regulation, the reason for these plans is clear; El Dorado County consists of numerous individual communities, each with a unique identity or character which its residents have felt is important to preserve. Certainly, one of the key issues facing the county during this General Plan process will be to identify standards and policies which will serve to protect and enhance these distinct rural, historic, rustic or even urbanized communities.

Before any serious discussion about land use development policies can begin, we must thoroughly understand the existing land use pattern. Currently, the county lacks a solid, up-to-date inventory of existing land use characteristics. Various types of land uses have a unique set of requirements which must be met for that use to be economically and environmentally viable. Agricultural uses require appropriate soils characteristics, an available water supply, favorable climate and freedom from intrusion of urbanized, incompatible uses. A differentiation between prime, agriculturally suited land and lands which are appropriate for development is an important first step in preparing a land use inventory. Conversely, commercial, industrial and multi-family residential land use are dependent upon available infrastructure and easy access from established roadways. A clear inventory of such parcels is necessary as a basis for making long-term land use decisions.

Quite often population growth and increased development are incorrectly perceived as purely negative effects. One of the significant benefits of increased development is the generation of greater job opportunities. Jobs provide not only employment, but an increased tax base and a catalyst for economic multiplier effects such as increased sales at local commercial establishments. The challenge for El Dorado County will be to attract and provide sufficient land and resources for clean, desirable commercial and industrial development. Additionally, land use policies must be able to provide clear, consistent guidance and a logical, well-thought out distribution of industrial, professional, research and development, and service industry land use designations. Current trends indicate a rising interest on the part of the industrial and business community to relocate to areas where their employees can benefit from a higher "quality of life." The General Plan Update will need to anticipate and address this issue.

Land use planning in El Dorado County is further complicated due to the fact that more than 48% of the land within the County is not within its land use regulation authority. The U.S. Forest Service, the Tahoe Regional Planning Agency, California State Parks, and the Cities of Placerville and South Lake Tahoe each reserve the right to regulate land development within their respective jurisdictions. The interface between county and other

jurisdictional lands provides its own unique set of issues and potential problems. Setbacks, buffer areas and allowable densities on lands adjacent to and within these other jurisdictions require a high degree of coordination and cooperation. Such coordination is often complicated by the different perspectives and value judgments of each jurisdiction.

### **3.2 Growth Management and Infrastructure Availability**

Throughout the country, cities and counties have enacted a wide variety of strategies for managing growth, ranging from building moratoriums and priority allocation systems to laissez-faire government and "let the marketplace decide" approaches. Yet underlying each of these strategies is the attempt to strike a balance between land development and the provision of public services and infrastructure. In El Dorado County the ability to provide services is limited by two factors, water supply and distribution infrastructure.

According to the county's major water purveyor, the El Dorado Irrigation District (EID), the current demand for water is closely approaching or exceeding current supplies. Small water development projects, such as Crawfords Ditch and Sly Park Reservoir Expansion have been undertaken in an attempt to keep pace with the amount of development which has already been approved and is being built. The fundamental question then is: should new (and probably very expensive) water supply sources be developed consistent with the rapid rate of anticipated development, or should development growth rates be regulated by current supply capacities? Clearly, this issue is not new, nor is it unique to El Dorado County, yet it poses a very significant political, economic and environmental dilemma which must be resolved. Both the El Dorado Irrigation District and the County Water Agency have been exploring various alternatives for increasing the supply of water to El Dorado County. The three most promising alternatives consist of the Texas Hill Reservoir Project, the Penstock/White Rock Diversion Project and the Alder Creek Impoundment Project. Although the Texas Hill Reservoir is probably the most strategic water supply site because of its proximity to the water treatment plant, the availability of water rights for the project are uncertain at this time. The Penstock/White Rock Diversion Project, which consists of tapping an additional water line into an existing Sacramento Municipal Utilities District Transmission Line, also has many unresolved water rights issues and the costs for this project are estimated to be within the 50 to 60 million dollar range. The Alder Creek Project, which is a snowmelt impoundment, has been discussed since the 1950s as a potential supply source, and the water rights issue for this project may be less difficult than the other two projects.

The development of any one of these projects will likely take a minimum of five years to go through the process of design, environmental review and construction. Yet the clock can not be started until several issues can be resolved including: 1) which of these projects should be pursued as the most cost effective, reliable water source, 2) how should the funding for such a project be obtained, and 3) what roles should the EID and the county water agency take in developing and distributing future water supply sources. The objective of the general plan is to predict, as accurately as possible, the likely projection of growth within the county and identify the resources and infrastructure which will be necessary to



accommodate that growth. If the development of necessary water supply resources proves to be infeasible, then the county must be prepared to take remedial measures to curtail growth consistent with the water resources which are available.

Resource and infrastructure availability will not only influence the rate of growth, but also the locational distribution of future growth as well. Currently in El Dorado County there are over 200 small water districts and three major public utility districts which supply water and wastewater services. As new development occurs within the county, some distribution facilities may need to be expanded to accommodate increased flows, or extended into previously unserved areas. These expansions and extensions are an expensive undertaking and tend to induce growth into areas which may not be appropriate. Within the more rural portions of the county, the extension of community services into and across agricultural lands also tends to encourage the process of suburban sprawl. If new development can be located in urban infill areas, where existing infrastructure can accommodate increased flows, a significant cost savings can be realized and sprawling development patterns can be curtailed. The targeting of appropriate new growth locations will be a major component of the general plan process.

### **3.3 Circulation**

The ability of a transportation system to accommodate future land use development can be measured by the relationship between the volume of traffic generated within the system and the design capacity of the system. This relationship is expressed by traffic engineers and planners in terms of "Level of Service." A Level of Service 'A' indicates a free-flowing circulation system with no congestion or delays. A Level of Service 'F' indicates a very congested circulation system which results in increased fuel consumption, longer travel time, and a high degree of frustration and stress for drivers. El Dorado County has adopted a Level of Service 'C' as a goal for county-wide circulation. The ability of the county to meet this goal will be a function of the amount of increased traffic generated by future development and the types of improvements which are made to the system over time. According to the recently prepared, though not yet adopted Circulation Element of the County General Plan (DKS Associates, 1989), if the county were to grow at its current rate under the guidance of existing area plan policies, a total of 250 to 300 million dollars of improvements will be necessary to maintain a Level of Service 'C.' The study states that the most appropriate mechanism for raising these funds is the collection of development fees, such that new development essentially "pays its own way" for the traffic impacts which it would create. Fees of between \$2,000 and \$3,000 per unit have been suggested. Aside from the county's consideration of the adoption of a development fee program, there are several other issues which will be considered in the general plan process. First, updating the general plan may result in modifications or revisions to the growth projections used in the proposed Circulation Element, and these modifications may have implications on the projected improvements and associated fee structure. Second, the county should give additional consideration to the realistic consequences of maintaining a Level of Service 'C' as a goal for all intersections within the county. It may be prudent to accept a less than

optimal peak hour Level of Service at certain intersections in favor of a more financially acceptable fee structure.

Circulation improvements can also be achieved by reducing the number of vehicle trips which various land uses generate. Transportation Systems Management (TSM) strategies can be an effective means to reduce vehicle trips if such strategies are well planned and fully implemented. Although TSM strategies are more typically applicable to densely settled urbanized areas, their potential use in El Dorado County should be considered. If future land use development patterns result in creating "centers" of commercial, industrial and residential communities, bus routes and other transit modes can become an effective and feasible means of transportation. Alternate modes of transportation such as bicycling and walking shall also be considered in the general plan. Bicycle paths and sidewalks can greatly enhance residents' ability to accomplish local shopping trips, get to parks, and visit neighbors without relying on the automobile. A coordinated trail system, which links trails of the U.S. Forest Service, State Parks and the county can provide a valuable recreational resource to county residents and visitors to the area.

### **3.4 Open Space, Conservation and Resource Management**

The importance of agriculture in El Dorado County dates back to the 1800s, when large cattle ranches, timber operations and fields of dryland crops dominated the landscape. Over time, the majority of the cattle ranches have been phased out due to economic pressures, and the large agricultural fields have been replaced by subdivisions and new communities. Agriculture, however, has remained an important aspect of El Dorado County's economy. Specialty crops such as apples and grapes producing high yields and economic returns, and organically grown produce from the South County finding eager markets throughout the state. The county's ability to maintain this agricultural industry relies on the protection and preservation of agriculturally suitable lands from the process of urbanization. According to the U.S. Soil Conservation Service, only 6% of the total county lands are considered to be prime, privately owned, agriculturally suitable lands. Although the county has recognized the value of agricultural lands and has consistently taken numerous steps to protect and preserve them, the pressure of development still threatens the long-term viability of agriculture in the county.

Aside from the economic benefits, agriculture also provides the county with large areas of open space. These open spaces provide definitions and separations between individual communities, remind county residents of their heritage, preserve views, and support the county's rural lifestyle and character. While agricultural lands currently have policies and regulations to provide for their preservation, another important open space characteristic of the county, hillsides and ridgelines, are not currently afforded similar protection. The topography of El Dorado County ranges from the relatively flat drylands of the western county to dramatic ridgelines, hillsides and mountains on the east. Without adequate protection, the ridgelines and hillsides of the western slope may continue to be terraced for building pads for future subdivisions.



The U.S. Forest Service has long practiced a policy of "multiple use" allowing for recreation, resource conservation and resource development within its jurisdiction. This policy or philosophy is equally applicable to El Dorado County. Within the county there are significant deposits of minerals and building materials, productive timber resources, important wildlife habitat, and scenic recreational opportunities. The values associated with these resources are not easily prioritized, yet any number of these resources may be present on the same tract of land. One of the many issues confronting the county is how to most appropriately manage and provide policy guidance for the long-term productivity of these resources such that the wide range of land use interests can be maintained. Clearly, some set of priorities will need to be made to define the most appropriate use of these resource values.

### **3.5 Public Safety and Hazards**

One of the general plan elements mandated by state law is a public safety element. This element will discuss the potential public safety hazards which confront El Dorado County, including seismic activity, flood hazards, landslides and fires. While it is critical that each of these issues be addressed in the General Plan Update, it appears that fire is the most potential and widespread public safety issue in the county.

During our public interview process the U.S. Forest Service, the California Department of Forestry, State Parks and many of the fire districts expressed great concern about the potential for a major fire to occur within the county. The most vulnerable "hot spots" for potential fires is the interface between the U.S. Forest or other forested lands and private residential development. Not only do people introduce the potential for unnatural causes of fire into the forest, but the danger to people and property is exacerbated by: the introduction of fire susceptible materials, narrow, circuitous and often dead end circulation systems, and overgrown vegetation connecting the forest to individual residences. The fire fighting organizations have suggested numerous measures to protect people and property from potential fire hazards including: 1) the adoption of the Uniform Fire Code as a standard for building regulations, 2) defining areas which are unsuitable for development because of high, unmitigable fire risks, and 3) recommending that every residence within a forested area maintain a "defensible space" around their property by clearing away all flammable vegetation. So far, these suggestions have not resulted in the implementation of specific policy or regulatory measures. Frequently the conditions for new development projects which are recommended by the fire districts are not imposed by the county or are simply ignored by project developers. The general plan process will examine this fire hazards issue in detail, and will identify appropriate fire prevention and protection policies as well as policies regarding other public safety issues such as flooding, seismic safety and landslides.

Landslides are a significant public safety hazard issue, particularly within the western third of El Dorado County along the "Mother Lode" fault zone and on the eastern slope of the

Sierras west of Emerald Bay. Historically, landslides and snow avalanches have temporarily closed both Highway 50 and 89.

### **3.6 Housing**

The provision of housing opportunities within El Dorado County is primarily a private sector responsibility. County government's role in housing focuses on: 1) promoting the availability of a wide variety of housing types to meet the needs of all incomes, ages and special needs of its residents, 2) maintaining a quality residential environment and community character, and 3) ensuring that adequate housing sites are properly located and times in response to demands.

El Dorado County, like many other jurisdictions, experiences problems of unmet housing needs, particularly in providing adequate opportunities for low and moderate income households. As housing demands increase throughout the county, housing costs traditionally increase at the same or even an inflated rate. This increased housing cost has left many low and moderate income households unable to afford housing within the county. Although rental properties have traditionally provided housing opportunities for these low and moderate income households, an increased demand increases rents and encourages owners to convert many renter properties to ownership units. Although El Dorado County's current housing element contains objectives and programs designed to increase opportunities for affordable housing, the gap between the cost of housing and many resident's ability to pay continues to widen.

Traditionally, the balance between the provision of housing and the availability of job opportunities is more crucial in communities where the housing supply is limited. In El Dorado County the job/housing balance is heavily tipped in favor of housing. This abundant housing supply does have a major influence on commuting patterns to the Sacramento area, and poses a land use issue for the county to consider; should the county strive to more equitably balance the relationship between housing and jobs by either limiting additional residential growth or expanding basic job opportunities. Either course of action would likely have a significant influence on the housing market within the county.

### **3.7 Recreation**

Due to the vast supply of national and state provided recreation opportunities within El Dorado County, the county provides very few recreational facilities. As the county grows, the Eldorado Forest and the State Parks cannot be relied upon to provide for the recreational needs of the county's residents, especially in the more urbanizing areas. Existing facilities for school grounds cannot fully meet the growing demands for ball fields, children's playgrounds, picnic areas and court game facilities. County service areas throughout the county have been established to develop a recreation plan within their respective service



areas, but it appears that an overall, county-coordinated plan for recreational resource acquisitions, development and programming is needed.

Many of the existing major recreational resources of the county will also receive greater numbers of visitors in the future. The South Fork of the American River is already one of the most highly visited rivers in the nation, and the popularity of river rafting is growing throughout the country. Issues which will directly affect the American River include; should there be a limit on the number of rafters able to use the river as defined by a "river carrying capacity"? Should increased residential development along the river be allowed, and if so, how can continued public access to the river be maintained? How can the county best coordinate with the various public and private interest groups in recognizing the national recreational interests of the river?

The Eldorado National Forest and the California State Parks will continue to provide opportunities and facilities for such activities as downhill and cross-country skiing, camping, hiking, hunting and fishing. The forest service anticipates that they will be increasing recreational opportunities within the forest by allowing for ski area expansion and developing additional recreational facilities in lower elevations to lengthen their summer recreation season. This increased recreational use will have implications for El Dorado County, not the least of which will be a significant revenue contribution. For example, it is estimated that approximately 500,000 people visit the Marshall Gold Discovery State Park, contributing approximately \$12 million into the local economy. The economic and cultural significance of recreation plays an important role in the lifestyle of county residents.

### **3.8 Lake Tahoe Basin**

The Lake Tahoe Basin, partially located in eastern El Dorado County, is a unique and spectacular scenic recreational and natural resource. Because of these unique values, the Tahoe Basin also has its own unique set of planning issues and problems. The states of California and Nevada determined that these issues and problems could most efficiently and effectively be dealt with on a regional level and, in 1967, established the Tahoe Regional Planning Agency (TRPA). The Agency is empowered to establish environmental thresholds, adopt a regional plan, and enforce implementing ordinances. Generally, land use development within the Tahoe Basin has and will continue to be extremely limited. The TRPA has developed a building permit allocation system which is geared to the capacity of waste water treatment plant operated by the South Lake Tahoe Public Utility District.

During this current year, El Dorado County received a building allocation of only 55 new residential permits and only 10,000 square feet of commercial space expansion. Next year's allocation is anticipated to be approximately 100 residential units. The process for determining which lots are able to be developed under this allocation system is based on an Individual Parcel Evaluation System (IPES) which gives a relative rating to the environmental sensitivity of each parcel within the basin. Those parcels which are determined to be the least environmentally sensitive are the most eligible for receiving

development approval. This process has been designed to allow for a certain amount of new development within the basin, yet to direct and regulate this new development such that the environmental thresholds of the region can be maintained.

Although the Tahoe Regional Planning Agency (TRPA) maintains the primary land use authority within the basin, the responsibility for providing recreational opportunities, preserving scenic and natural areas, and safeguarding the public is divided among local, regional, state and federal governments, including El Dorado County. Each of the county's updated general plan elements will consider the issues and problems in the Tahoe basin, and specific policies and implementing ordinances will be developed.

One of the first issues which will need to be resolved in preparing the General Plan Update will be how to develop a county plan and zoning ordinance which will maintain consistency with the regional plan and its implementing ordinances. Several other cities and counties within the basin have simply chosen to adopt the TRPA plans and ordinances as their own. Other jurisdictions have felt that the TRPA system is not appropriate to deal with the types of regulatory issues which the county or city must resolve and have therefore maintained their own separate plans and ordinances. Currently, El Dorado County does have its own zoning ordinances to deal with the Tahoe Basin although there are no area plans for the eastern slope of the county.

The community of Meyers is El Dorado County's gateway to Lake Tahoe. There is almost a unanimous consensus that this community is visually unattractive and that the "strip" commercial development located along the Highway 50 corridor detracts from the scenic quality of the basin. The Tahoe branch of the County Planning Department will soon be preparing a Meyers Community Plan to deal with this issue. This plan may involve transferring or relocating some of the strip-type development away from the most visible areas of the community. The General Plan Team will need to coordinate with the planners preparing the Meyers Community Plan so that the two documents produce a consistent plan for the area.

Transportation and circulation is a major issue within the Tahoe Basin as it affects both air quality and water quality of the lake. Vehicle emission have been found to be one of the major contributors to the process of eutrophication within the lake. Additionally, traffic congestion is often cited as one of the most negative aspects of the South Shore, affecting residents and visitors alike. Several alternatives for relieving traffic congestion have been proposed, including the construction of a rail corridor along the Highway 50 alignment, the expansion of Pioneer Trail as a secondary arterial, and developing a new roadway along and existing right-of-way held by Cal Trans which roughly parallels the Highway 50 corridor. Each of these alternatives have significant environmental and financial implications which must be seriously considered by the county as well as the TRPA, the City of South Lake Tahoe and other interested citizen groups.



### **3.9 Implementation and Financing**

The value of any general plan can only be measured by the degree to which the plan can be implemented and the ability of the county to finance the improvements which are recommended. If the plan is not feasible from an administrative or financial perspective then there is very little benefit which can be derived from the general plan process.

Several administrative issues currently affect the planning department's ability to effectively administer and implement the existing general plan. The general plan is comprised of a series of 26 separate area plans which contain land use policies for nearly every individual community within the county. Land use designations and their associated development policies are not consistent from one area plan to the next, and this inconsistency makes it extremely difficult to administer the plan in an equitable manner. Additionally, the staffs' reliance on 26 separate documents to reference general plan policies is extremely cumbersome and inefficient. One general plan document which contains a unique set of policies pertaining to certain sub-areas of the county would be a more effective and equitable means for administering county land use policy.

Similarly, the county's project review process is equally cumbersome. A seemingly straightforward development permit application process can become a series of complex, overlapping permit requirements due to the fact that the county is not responsible for providing the majority of public services (including water and waste water service, fire protection, schools, and other utilities). Individual approvals from each of the necessary service providers is required before the county can consider a building permit application. Unfortunately, the county does not have a simple, standard procedure for processing applications or a checklist of permit requirements to facilitate the applicants' development requests.

The county's current process for project environment review relies strongly on mitigated negative declarations of environment impacts. While this process has resulted in the imposition of sound environmental mitigation measures as conditions for project approval, the county's decision making process does not frequently have the benefit of an all-encompassing environmental impact report on which to base its decisions. One of the reasons that full EIR's have not frequently been required in the county is that a thorough report of existing baseline conditions is not readily available. Therefore, any project applicant who is required to prepare an EIR is put into the position of researching the entire broad range of existing environmental conditions before an assessment can be made as to the potential impacts which might result from the proposed project. The county has felt that this baseline conditions research is too great a burden to place on any single applicant. An Environmental Impact Report will be prepared pursuant to the adoption of this general plan update and should provide this needed baseline conditions report.

The final test of the general plan will be the county's ability to finance the improvements which will be identified. The question of "who gets and who pays" will become a crucial issue as new development necessitates the expansion of infrastructure and services. The

changing demographics of the county will also bring about a changing perspective in the types of services provided and the level of services to be maintained. Currently, development fees are charged to offset the costs of providing water supply, schools, fire protection and other critical services. In most cases, however, these fees do not provide sufficient funds to fully offset the costs associated with providing the service. The question of whether or not development fees should be increased or expanded to more fully offset the financial impacts of growth will be a crucial issue for the county to consider.

Additionally, certain infrastructure improvements such as roadway improvements and drainage improvements are not funded through development fees, but instead are financed through the County General Fund and various grant and loan programs. Because Proposition 13 has effectively limited the county's ability to increase property taxes, other financing strategies are and will continue to be necessary to pay for public service improvements. Such strategies may include imposing new development fees, expanding the responsibilities of the county service areas, and creating new assessment districts. Whatever financing strategies are finally arrived at through this general plan process, it will be vitally important that a fiscally feasible infrastructure improvement plan is coordinated with the growth and development projected for the county.

### **3.10 The Perception of Issues and their Relationship to the general plan**

The General Plan Work Program (fully described in Chapter 7.0 of this Reconnaissance Report) has been designed to respond to each of the issues discussed in this section. During the general plan process, specific details regarding each issue will be identified, potential options will be evaluated, and policy recommendations will be prepared. Some of the issues identified, such as land use and development, will be treated as individual elements within the general plan. Other issues, such as recreation or water supply, will comprise sub-sections of elements dealing with a broader topic such as public services and infrastructure. The General Plan Team will develop a set of policies and guidelines recommending resolutions to each of these issues based on the teams professional experience and background, and the insight and advice provided by the public. The specific process by which public input shall be obtained is fully described in the following chapter.



## **4.0 PUBLIC PARTICIPATION PROGRAM**

The El Dorado County General Plan Update planning process will contain a very strong public participation program. The public's input, advice and council will be especially sought with regards to: 1) defining the scope of issues to be addressed in the general plan, 2) providing the planning team with valuable insight, background information, and technical data, 3) guiding the overall direction of public policy to be presented in the plan, 4) reviewing each of the work products prepared by the planning team for accuracy, consistency and the ability to be read and understood, and 5) carrying the plan through the county adoption process. Towards this end, three separate public participation/advisory groups shall be formed.

### **4.1 Policy Advisory Committee**

The first advisory group is a Policy Advisory Committee (PAC). The members of PAC have been appointed by the County Board of Supervisors and will be accountable to them. The PAC will convene jointly with the General Plan Team (consultant and county staff) to provide a forum for guidance, discussion, and initial review of plan reports and draft documents. It is anticipated that all major plan reports considered by the Planning Commission and the Board will be accompanied by a report and recommendation from the PAC. The PAC will meet formally with the consultant and Planning Division staff on a bi-monthly basis or more often if deemed necessary.

This Policy Advisory Committee is intended to reflect a broad, comprehensive view of the many potentially diverse interests and positions relative to the general plan program. Therefore, the composition of this committee has been based on the Board of Supervisor's selection of individuals who have proven their knowledge, judgement and demonstrated commitment to the community. Each member of the Board of Supervisors has appointed three individuals to serve on this committee. These appointed individuals are as follows:

Ann Anderson  
Pam Atwood  
Michael Butler  
Ronald Collins  
Norinne Gallesdorfer  
Marcia Gerwer  
Vaughn Hintze  
Gary Knops

Doug Leisc  
Barbara Procissi  
Linda Ritchie  
Bill Sachse  
Jeri V. Sayers  
Vern Sayles  
Marian Wickline

## **4.2 Technical Advisory Committee**

The second advisory group will be a Technical Advisory Committee (TAC), whose primary function would be data input, technical analysis and peer review of plan methodologies and draft plan documents. The TAC's role will relate directly to the General Plan team's work. They will be advisory to the General Plan Team in a similar manner as the PAC is advisory to the Planning Commission and Board. The following departments and governmental entities will contribute to the process of technical review:

### Federal Government:

- Bureau of Land Management
- U.S. Forest Service
- U.S. Soil Conservation District

### State Government:

- California Department of Forestry
- California Department of Fish and Game
- California State Parks

### Other Local Governments:

- Tahoe Regional Planning Agency (for Tahoe Basin planning issues only)
- City of South Lake Tahoe
- City of Placerville

### El Dorado County Government:

- County Administrative Office
- Community Development Department
- Sheriff's Office
- Data Processing Department (information management issues only)
- Department of Transportation
- Agricultural Commission
- Recreation Commission

### Other Districts and Organizations:

- Fire Districts
- School Districts
- Water Purveyors
- Utility Companies



Each department, agency or group shall appoint a specific individual to serve on the committee with the understanding that the appointee has professional competence in the organization's service or function.

#### **4.3 General Plan Forum**

In addition to the PAC and TAC, a General Plan Forum (GPF) will be established. Membership in this group is open to anyone who is interested and wishes to participate in the planning process. The general plan work program specifically identifies public workshops which will be conducted at strategic points in the plan development process. These workshops, and other public meetings which will be held by county staff, will provide a forum and focus for the broadest level of public participation in the general plan process. This series of community workshops will be held at locations throughout El Dorado County. The first "round" of public workshops will focus on setting general goals for the county and specific objectives for the communities represented at each workshop. The objective of the second "round" of workshops will be to solicit feedback on alternative plans for the county as a whole, and to discuss specific alternatives for those communities represented. The third "round" of public workshops will consist of a presentation of the preliminary land use plans and policies for the county. This presentation will summarize the key features of the plan and the specific recommendations for the communities which are represented at the workshop. A total of 10 public workshops will be conducted by the full General Plan Team; additional workshops will be conducted by county planning staff depending upon public interest and the need for further clarification or input.

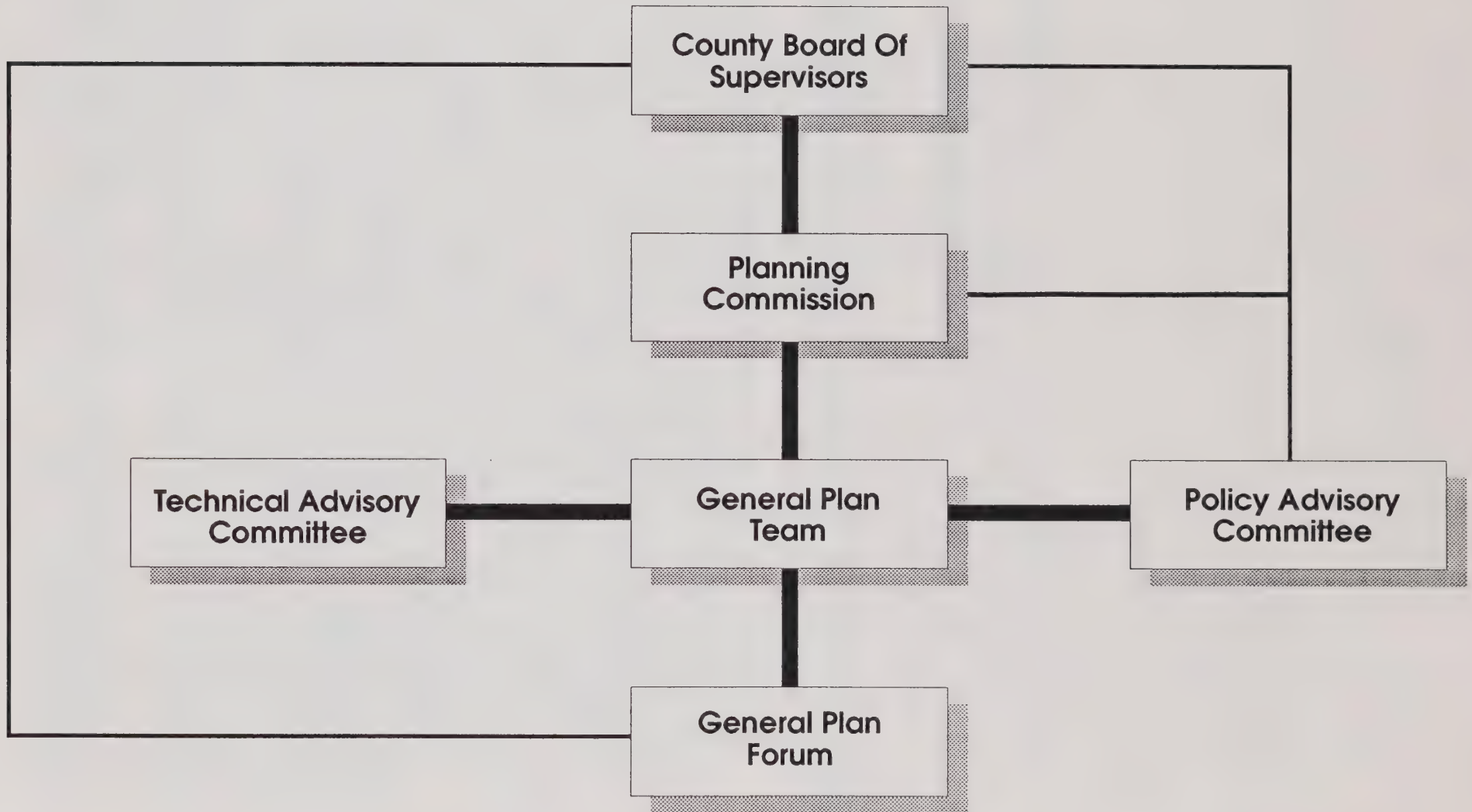
The structure or organization of General Plan Forums will be determined by the participants. A likely scenario would include a general county-wide forum and several area forums, whose participation would conform to some logical and manageable planning geography.

#### **4.4 General Plan Public Participation Process**

The following diagram, Figure 4.1, represents the overall framework of public participation in the general plan update process.

Figure 4.1:

## PUBLIC PARTICIPATION PROCESS





## **5.0 GEOGRAPHIC INFORMATION SYSTEMS**

The purpose of this chapter is to explain what "GIS" means and to outline the alternatives available to El Dorado County in regard to Geographic Information Systems (GIS). The paper begins with an explanation of GIS; its definitions and varied capabilities, along with the commitment of resources and funds associated with different systems. The next section reviews the potential application of GIS by the various county departments. Next, we present our seven step recommendation to the county. The last section summarizes the key points of the chapter.

We recommend that the county carefully progress toward implementing a GIS. First the county must establish a sound database and mapping system. Then the county should experiment with their database and some inexpensive mapping systems. This will give them a chance to become familiar with the capabilities of a full GIS and to help them define their exact departmental needs. Once the county has a clear vision on what they need from a GIS, they can send out an RFP to GIS vendors and begin a pilot GIS program.

A GIS committee or GIS special consultant should continue its efforts parallel to the General Plan Team's work. When the GIS committee or consultant is defining needs, they should consult SCA on the GIS needs for the monitoring system. When the GIS system is up-and-running it will provide the best means of monitoring the consequence of the long range general plan.

### **5.1 Background and Definitions**

An ad-hoc committee formed earlier this year to discuss the county's need for a GIS. Members of the committee included: Doug Cheney (Department of Transportation), Dan Russel (Surveyors Department), Terry Tawney (Assessors Department), Elaine Lyman (Auditor/Controller Department), Roland Maddox (Community Development Department), Martha Willoughby (Elections Department), John Sestock (Data Processing Division of CAO), Ollie Reighn (Communications Department, and Sherril Jodar (Community Development Department).

The committee met three times to discuss county GIS needs and to formulate suggestions on how to implement a GIS. These evaluations will be included in a letter to the Chief Administrative Office. Because of limitations on available work time, the group will disband once the letter is written.

This paper is intended to help the ad-hoc GIS committee in their effort to educate potential users about GIS and to provide a "big picture" analysis of the field.

Many people hear and use the term GIS (Geographic Information Systems) without having a clear understanding of what it means. "A GIS ... enables computers to represent spatial phenomena and analyze spatially related data. All GIS integrate a mapping function, which displays maps or geographic features (such as polygons, lines or points), with a database manager, which organizes the attribute data tied to the various map features."<sup>1</sup> More simply said, a GIS links computerized maps to databases.

### Computer Aided Mapping

Although Computer Aided Mapping (CAM) produces computerized maps, an important distinction needs to be made between CAM and GIS. CAM systems are not designed to do spatial analysis. They are only designed to map data. Points, lines and polygons are drawn on separate layers within the program. The visual display monitor or plotting device allows one to create overlays, but the computer does not "know" what it has created. It has no way of analytically relating data on separate layers. For departments that require precise accuracy, but little analytical capabilities, a CAM system can fulfill many of their needs.

### Databases

Databases are computerized filing systems. Each "file" is represented as a collection of "records" in the database. The records are pre-formatted with a number of "fields". (Think of it as a pre-made form for each file. Each blank line used to fill in answers is a field.) One of these fields is generally "geo-relational". That means that it somehow ties the record down to the ground. It could be a set of latitude and longitude coordinates, an address, or an assessors parcel number. When a GIS links maps with databases, it does so through the geo-relational field.

The advantages of a computerized filing system is that one can manipulate the files in a multitude of ways. For example, suppose you have a database of all the census tracts in El Dorado County. Each record contains a field for 1980 Average family income. You are interested in comparing the income with 1989 income, so you create a new field, "Adjusted 1980 Income". You then have the computer multiply the 1980 income by an inflation factor to make it comparable to 1989 income. After this is completed, you sort the database according to the adjusted 1980 average family income. You now have a list of the wealthiest to poorest census tracts in El Dorado County. Note that you do not need a GIS system to do this analysis. It is all done within the database.

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<sup>1</sup> Jonathan Levine and John Landis, "Microcomputer-based Geographic Information Systems for Planning," *A Planner's Review of PC Software and Technology*, American Planning Association Planning Advisory Service Report, 414/415 (December 1988). pg. 55.



## 5.2 Attributes and Functions of GIS

There are many GIS systems, but all have three common attributes. First, they all have the capability to map lines, points, or polygons. Second, a portion of the GIS is devoted to storing the database information. Finally, the GIS has some method of linking the data to features on the map. The latter attribute, the ability to link data and maps, allows GIS to perform many functions. They can store and retrieve data and provide nice pictures for public presentation. But the greatest advantages are the analytical functions:

1. Forward search -- ask the computer to display a map feature
2. Backward search -- point to a map location on the computer screen and have the computer display information on the features of that location
3. Calculate distances between points of the map
4. Overlay different features
5. Buffer an area -- have the computer set a boundary around an existing area to create a new analytical area

This paper will describe three general types of GIS: thematic mapping, point mapping and true GIS. Each type has different capabilities with regard to the five functions listed above. Table 5.1 compares the functional capabilities.

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**Table 5.1: Capabilities and Ease of Use of Thematic Mapping, Point Based Mapping and True GIS**

| Functions           | Thematic  | Point Based     | True GIS                               |
|---------------------|-----------|-----------------|----------------------------------------|
| Forward search      | x         | x               | x                                      |
| Backward search     |           | x               | x                                      |
| calculate distances |           | x               | x                                      |
| overlay             |           |                 | x                                      |
| buffer              | x         | x               | x                                      |
| Ease of Use         | very easy | moderately easy | Moderately difficult to very difficult |

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### Thematic Mapping

Thematic mapping allows one to shade areas (in this case census tracts) according to a value of a variable (1980 Average Income). One can choose any variable in their database or variable created within the database. For example, a 1980 Adjusted Average Income. Using the terms of the last section, the program has forward search capabilities. Thematic mapping can also perform limited buffering tasks. After a map is created, the user

may not initiate database searches directly from the map (backward search). One could not click on one of the census tracts and bring up information on 1980 income.

This program is inexpensive and provides a very useful means of creating graphics for public presentation. There are many ready-made base maps available for state, counties, census tracts, and ZIP Code districts. (Note that much of this could be done on the database, without the GIS. Thematic mapping allows one to visually display the results of the analysis.)

A thematic mapping package will not meet all the GIS needs of the county. Although it does not appear very useful in comparison to some of the other functions, it is a powerful tool. Its greatest strengths are its simplicity and its flexibility in manipulating the database. Since most data come from the decennial census, the census tract boundaries are a good means of displaying analyses. The Community Development Department's Planning Division, in particular, should consider purchasing a thematic mapping system, regardless of the status of a GIS.

### Point Mapping

In a point mapping system, the computer matches addresses to coordinates on the map. These addresses are then shown on a street layout. (Although the street system creates areas on the screen, these areas can not be shaded as they were in the thematic mapping package. Most point mapping systems have a limited database manager within the program that allows users to specify multiple criteria for mapping (e.g., show all (1) three-bedroom homes that (2) cost more than \$300,00 that (3) applied for remodel permits in 1989.) Point based mapping systems also have a limited ability to calculate distances. It is important that one realize that point based mapping systems only work well when one needs to work with data locations as points (e.g. homes, parks, facilities, businesses.) It would not be useful for showing data related to areas or lines (e.g., school districts, census tracts, floodplains, streams, roads, sewer systems.) All parcel data is specifically related to one point on the map. For example, if the map shows individual parcels, all the information for that parcel is located at one point, generally the centroid of the parcel. Pre-made street maps are just now available for point based mapping systems. Although not precisely accurate, they provide a very convenient method of getting a system set up much more quickly. This would be a very effective system for many of the county departments.

### True GIS

Thematic mapping and point mapping each fulfill some of the functions of a GIS. A true GIS, though, fulfills all the functions. Although more powerful and flexible, true GIS systems are considerably more difficult to learn and maintain. The strongest aspect of a true GIS is that each map feature "knows" where it is in relation to all other features (forward and backward search). This allows one to do a very wide variety of analyses. For example, a true GIS can be used to create a new area by "clipping" portions of existing, larger area. A true GIS also allows a user to assign a value to an area (say a zoning classification) and then, using those areas, assign values to a base map (say the parcel map). Thus a user



could first construct a thematic map of land uses or zoning classification and then, by overlaying it on a parcel map, assign the proper zoning codes to specific parcels and locations. A true GIS also has full database capabilities and can overlay multiple maps.

The true GISs now available are not "user friendly". It requires the commitment of at least one full-time staff person whose sole responsibility is to develop applications, provide support to others who wish to use the system, and maintain and update the map and database. If this staff person is continually called to perform other duties, the GIS will progress slowly and will not represent all current data. Once one has acquired the skills needed to run the true GIS, one has a very marketable skill. The county has to be able to commit a salary comparable to other areas. Should the true GIS manager leave the county, the system users would not be able to work until the manager was replaced. For this reason, the county should, as a failsafe, dedicate at least one other staff member to the system. (A survey of GIS users shows that the average number of full time staff members working specifically with the computer mapping system is 2.7. The staff size ranges from 0 to 22. Only half of the agencies did not find it necessary to hire a specialist to operate the mapping system.<sup>2</sup>)

### **5.3 Potential Applications**

Specific needs for a GIS can only be defined by the users. The following list of potential applications is not definitive. Almost any type of analysis and mapping is possible with a true GIS, but the time and difficulty of setting up a true system might outweigh the benefits. Potential uses for some department are listed with reference to the functions discussed earlier (forward and backward search, calculate distances, overlay, buffer). There are many more departments in the county, these are only the most likely users.

When the county defines a list of features for a GIS, they may find that they cannot find a system to meet all their needs. A true GIS could conceivably meet all the county's needs, but the system may become so cumbersome and difficult to learn that it becomes unmanageable. The following assessment (along with Table 5.1 and Table 5.2) may help the county prioritize needs and find alternative means of fulfilling some needs. Appendix D provides the mapping and GIS experience of five other California counties. This survey gives practical advice on costs, staffing and general success.

Assessors Department. The Assessors Department requires the ability to quickly link parcel maps with record files (forward and backward search). They would also like to be able to overlay topographic features over the assessor maps to precisely define parcel boundaries (overlay). They require very precise maps.

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<sup>2</sup> Steve French, Lyna Wiggins and Kelly Heffernon, "Planning Agency Experiences with Automated Mapping and Geographic Information Systems". *Presented at the International Conference on Computers in Urban Planning and Urban Management, Hong Kong.* (August 1989).

Building Division, Community Development Department. Point based mapping systems are very powerful means of finding specific data within an area (e.g., how many buildings with code violations fall within the study area). This type of analytical capabilities would be good for the Building Division (forward and backward search). The maps need only be accurate enough to show relative location.

**Table 5.2: County Departments and Perceived GIS Functional Needs**

| Department             | Forward Search | Backward Search | Calculate Distances | Overlay | Buffer |
|------------------------|----------------|-----------------|---------------------|---------|--------|
| Assessor               | x              | x               |                     | x       |        |
| Building               | o              | o               |                     |         |        |
| Communications         | o              |                 | o                   |         |        |
| Current Planning       | o              | o               |                     | o       | x      |
| Elections              | o              |                 |                     | x       | x      |
| Environmental Planning |                |                 |                     | x       | x      |
| Health                 | o              |                 |                     | o       |        |
| Long Range Planning    | o              | o               |                     | o       | x      |
| Surveyor               |                |                 | x                   | x       |        |
| Transportation         | x              | x               | x                   | x       | x      |

**LEGEND**

No function needed  
General Map Accuracy  
Precise Map Accuracy

|   |
|---|
|   |
| o |
| x |

Table 5.2 points out two very important issues. One is that many of the departments do not need all the functions of a true GIS. Secondly, the degree of map accuracy needed throughout the county departments varies. These two points suggest that an inter-department GIS system may not be appropriate. Some needs may be more aptly fulfilled by thematic mapping, database managing or computer aided mapping. It also suggests that two different systems, each with its own degree of accuracy, may be appropriate. (The costs of obtaining and maintaining precise accuracy is very high. In the end it may be more cost-effective to have two systems.)



Communications Department. In maintaining communication lines to the departments and emergency services, the Communication Department would need periodic use of a GIS. They could use the GIS to locate where calls are made from (forward search) and to plan for radio tower sites (calculate distances). Map accuracy is not critical.

Planning Division, Community Development Department, Current Planning. Current planners perform widely varied functions, requiring many of the functions of the GIS. For example: A developer brings in a project to the Planning Division. First the planner locates the parcel on a map and determine zoning and general plan classifications and any scenic, noise, or geographic features of the site (backward search). The project later comes up for Commission review. One of the most tedious chores of planning is doing a 300 foot noticing list (buffer). The GIS system provides a noticing list. The planner decides a visual graphic of the site would be very helpful during the council presentation. The system easily produces the graphics for presentation and publishing. The planner also decides to run a quick analysis on how many of the surrounding parcels have done similar projects (forward search). Finally, the project is approved, and three months later the developer comes in for a plan check. The planner at the counter quickly looks up the parcel file (backward search) and looks at the plan check requirements. Another powerful tools of a GIS for current planning is to be able to update maps (general plan and zoning) and databases (parcel address files) at the same time. Current planning also would find need of a GIS in special studies analyses (overlay). Map accuracy is important since it is a legal document.

Elections Department. The Elections department could use the buffering capabilities of a thematic mapping package to create maps of polling locations and voter sign-off lists (buffer). First, they need to compare all the special districts to create the precinct boundaries (overlay). Then they need to locate all the public buildings (forward search). Map accuracy is fairly important.

Planning Division, Community Development Department, Environmental Planning. All major planning projects require an assessment of the environmental impacts. The complex system of evaluating impacts would be aided by a true GIS (overlay, buffer). Map accuracy is fairly important.

Health Department. The Health Department needs periodic use of a point mapping system to prepare epidemiology maps (forward search).<sup>3</sup> Map accuracy is not a critical aspect of this reporting. They do not need to know the exact location of incidence, only the general location. Comparing the epidemiology maps to one another might point out critical health hazard areas (overlay).

Planning Division, Community Development Department, Long Range Planning. Several of the analytical function of long range planning would best be served by a GIS. These functions include special studies, site selection and market analysis, development-suitability

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<sup>3</sup> Epidemiology deals with the incidence, distribution, and control of disease in population.

modelling and general plan monitoring (forward and backward search, overlay). The long range planners also do noticing lists (buffer). Map accuracy is not as important.

Surveyor Department. The job of the surveyors is to survey and record information. They require little analytical abilities, but they do require the ability to measure distances and overlay features (calculate distances, overlay). Very precise map accuracy is required.

Department of Transportation. The Department of Transportation (DOT) needs to link road, electric and water systems with adjoining parcels and with tax assessment datafiles (forward and backward search). A GIS would also allow transportation network analysis and modeling (distances, overlay, buffer). DOT requires very precise maps.

#### Developing a Multi-Department GIS

There are benefits to having a multi-department GIS. A shared map and geographic database is more efficient because it eliminates the redundant effort required to maintain and update separate map records in several departments. It also eliminates the inconsistency of separately maintained databases.

A shared system also has a number of drawbacks. "The organizational issues related to developing a multi-department system are much more complex. Questions of who will own and maintain various parts of the database must be considered. Most importantly, since various departments have different responsibilities and missions, the types of analytic capabilities that they require will naturally vary. This suggests that a single system may not be optimized to meet the needs of the whole range of departments. Different levels of data accuracy and resolution may also be required by various departments. It is, therefore, important to understand the system requirements of each department in order to understand whether a shared system is possible or desirable."<sup>4</sup>

A number of problems can occur in implementing any mapping system. The most frequently cited problems include: Lack of staff and staff training, lack of management support, lack of cooperation, problems with data input and software, complexity of software, and time costs (many users feel that it took much longer to implement than expected).<sup>5</sup>

#### **5.4 Recommended Plan of Action**

We recommend that the county ad-hoc GIS committee continue with their work toward implementing a GIS. There are several things that the county can do to prepare themselves

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<sup>4</sup> Steven French and Heather McMillan, "San Luis Obispo County User Needs Assessment for Automated Mapping/Geographic Information Systems." *Design Institute Report*, GIST-01-89. pg. 2.

<sup>5</sup> Steve French, Lyna Wiggins and Kelly Heffernon.



for a GIS and to familiarize themselves with the available options. We recommend a six point plan of action.

### Step 1. Establish a Sound Database

The General Plan Team, as part of our work, will supply the county with the beginnings of a good database. The General Plan Team will be doing their analysis on a program called *Progress*. This system is very powerful, but difficult to learn. We recommend that the county start looking now for a database management software system of their own. We assume that the county will do away with the Burroughs system and purchase more IBM or IBM compatible machines. The county should select a database management software that runs on this system. The assessors office is impressed with their existing database management system, *Model 204*. This is one choice, but it is worth reviewing further.

### Step 2. Implement a Multi-department Information Center

Overcoming the logistics and politics of multi-department users will be very difficult. One way to test-out the system is to implement a multi-department information center. The county should place one department in charge of updating and maintaining a database for the whole county. Each department would put in a request for data or analysis to the information center. Once the information center is set up, the county shall pay special attention to monitoring the results. The effort the county spends on making the information center work will directly benefit a shared GIS.

### Step 3. Experiment

Experimenting with the software and hardware capabilities is perhaps the most important step in the recommendation. The various departments should experiment with the database and learn how to manipulate variables to glean new information. This will help later in defining needs. Using database managers, CAM, and thematic mapping packages for specific projects can develop staff expertise and build staff experience with automated mapping and geographic information system concepts and techniques.<sup>6</sup>

By taking time to experiment and become acquainted with GIS capabilities, the county also allows the industry to grow. The GIS industry expects to have major changes within the next few years: computers are getting faster, users are more sophisticated, graphics are getting better, and pre-made land bases will be better, more easily available and easier to change. One of the biggest changes will be in mass storage devices. One of the problems with doing graphics on computers is that the process uses up a lot of memory space. The technology for mass storage devices is improving very rapidly.

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<sup>6</sup> Steven French and Heather McMillan, pg. 22.

#### Step 4. Choose Map Format

The county departments must agree on the accuracy and digitizing scale for maps. Defining the degree of accuracy needed is an important step. The more accurate the required mapping is, the more expensive and difficult it will be to control.

Many county departments currently perform redundant functions. This seems to be particularly true of map digitizing efforts. It is important the county agree on a uniform mapping system and format.

#### Step 5. Define the Exact Departmental Needs

Again, the biggest reason to wait and experiment is to give users the chance to familiarize themselves with GIS and to explicitly define their needs. The ad-hoc GIS committee is already working on this critical task. When the county feels it is ready to select a GIS system, each department should spell out the type of map and accuracy they need and two or three specific functions. It might benefit the county to bring in a special GIS consultant to help at this point. The county should then distill this list into a list of three or four overall functions. They should also establish a list of criteria and standards with which to evaluate different systems. One of the risks of a multi-department GIS is that the system will probably not satisfy everyone's needs. In defining their needs, the county should set realistic goals. They should start with a small system and work their way up. The system should be able to perform current department functions of the departments, not just functions people feel they would like. It is wise to limit the system to something the county can get up-and-running in a year or two.

#### Step 6. Send out an RFP out to GIS Vendors

Once the county has defined exactly what features an map resolution they require, they should send an RFP out to GIS vendors. It is not important that the county or GIS committee try to review every GIS. Let the vendors show the county how their system fits its needs.

#### Step 7. Conduct a Pilot Study

Developing a pilot study program has three principal benefits: 1) it assures that the system will produce useful products in a relatively short time; 2) it demonstrates system capabilities; and 3) it provides a means of working the bugs out of the system before full implementation. The county should consider a pilot study approach rather than attempting to develop a system for the whole jurisdiction simultaneously.<sup>7</sup>

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<sup>7</sup> Steven French and Heather McMillan, pg. 19.



## Summary

Implementing a GIS is a major commitment of resources. The staff requirements will be at least as large as current staff levels until all the maps are on the computer (around three or four years). The important thing to remember is that a GIS is an analytical tool. A spreadsheet or database program can do many of the same functions, but on a GIS the computer locates the points of analysis. Although inefficient, locating these points can also be done by hand. The county departments should experiment with less costly programs to understand exactly which functions need to be done by computer and which should be done by hand.





## **6.0 GENERAL PLAN STRUCTURE**

### **6.1 Relationship To Area Plans**

It has been mentioned numerous times throughout this Reconnaissance Report that the existing 26 separate area plans will not be maintained in the General Plan Update. The division of the county into so many small areas has proven to be an ineffective, inconsistent and confusing structure for defining land use categories and policies. However, the area plans do have many positive attributes, including a system of maps which are well organized and maintained. The structure of the General Plan Update shall make use of as much pertinent data, information and policies from these area plans as possible. This section explains the relationship of the area plans to the General Plan Update and outlines the latter document.

Based on current land use development patterns, physiographic characteristics, and sociological similarities, we recommend that sub-areas within the county be developed for the General Plan Update using the plan area boundaries as a base. These sub-areas would be defined as: 1) the Georgetown Divide, 2) the Lower Western Slope, 3) the Upper Western Slope, 4) South County, 5) American River Corridor, 6) the Tahoe Basin, and 7) the El Dorado Forest sub-areas. Each of the first five General Plan sub-areas would be made up of a grouping of existing area plan boundaries. (See Figure 2.3: Recommended General Plan Sub-Areas.)

The purpose for defining these sub-areas is to establish a manageable land use data base, record baseline data, and to develop and graphically portray land use alternatives. A Community Plan Element will be one of the components of the General Plan Update. This element will contain special land use, economic development and resource conservation policies which are specifically attributable to, or distinct for, each sub-area. To the extent that area plan policies remain relevant and applicable, these policies will be considered for inclusion with the Community Plan Element.

### **6.2 El Dorado County General Plan Update Outline**

The following outline represents a very preliminary concept of how the General Plan Update is anticipated to be structured. This outline is presented in the Reconnaissance Report to show how the plan will be organized, what the major topics are anticipated to be, and the likely types of graphics which will be developed.

## **I. Introduction**

- A. What is a General Plan?
- B. Time Frame of the Plan and Revision Process
- C. Use of the Plan by Citizens and Decision Makers
- D. Relationship to Zoning and Subdivision Ordinances
- E. Relationship to TRPA Plans, Codes and Ordinances
- F. Organization of the Plan

## **II. Goals and Objectives**

- A. Land Use
- B. Community Development
- C. Circulation
- D. Public Services and Infrastructure
- E. Natural Resource Conservation/Public Safety
- F. Housing
- G. Economic Development
- H. Implementation/Capital Improvements

## **III. Land Use Element**

- A. Organization of the Land Use Element
- B. General County Land Use Classifications
  - 1. Urban
  - 2. Rural
  - 3. Rural Agricultural



- C. Future Land Use Plan
  - 1. Land Use Concept
  - 2. Land Use Categories

#### **IV. Community Plan Element**

- A. Organization of the Community Plan Element
- B. Existing Role of Area Plans
- C. Community Plans and Policies
  - 1. Georgetown Divide
  - 2. Lower Western Slope
  - 3. Upper Western Slope
  - 4. South County
  - 5. American River Corridor
  - 6. Tahoe Basin
  - 7. El Dorado Forest

#### **V. Circulation Element**

- A. Organization of the Circulation Element
- B. Proposed 1989 Circulation Element and the West Slope Traffic Model
- C. Functional Classification of Roadways
- D. Forecasts for the Future
  - 1. Forecasted Travel Demand
  - 2. Necessary Transportation Improvements
  - 3. Use of Alternative Transit Models
- E. El Dorado County's Position Regarding the Tahoe Basin Regional Transportation Plan
- F. Scenic Highways
- G. Circulation Policies

## **VI. Community Services Element**

### **A. Organization of the Community Services Element**

### **B. Water**

1. Supply Sources
2. Distribution Facilities

### **C. Wastewater**

1. Collection
2. Treatment and Disposal
3. Septic Systems

### **D. Drainage and Flood Control**

### **E. Solid Waste/Landfill**

### **F. Parks and Recreation**

### **G. Fire Protection**

1. Service Areas
2. Intergovernmental Aid

### **H. Law Enforcement**

### **I. Emergency Medical**

### **J. Libraries**

### **K. Schools**

## **VII. Conservation/Open Space/Public Safety**

### **A. Organization of the Conservation and Open Space Element**

### **B. Current Conservation and Open Space Element**

### **C. Natural Resources**

1. Agriculture/Soils
2. Timber
3. Mineral Resources



- 4. Water and Water Quality
  - 5. Wildlife Habitat
- D. Conservation Policies
- E. Open Space
  - 1. Resource Preservation
  - 2. Recreation
  - 3. Scenic/Visual Character
- F. Open Space Preservation Policies
- G. Public Safety
  - 1. Fire
  - 2. Seismic Hazards (Update Existing Element)
  - 3. Flooding
  - 4. Noise (Update Existing Element)
  - 5. Hazardous Substances (Update Existing Element)
- H. Public Safety Policies

## **VIII. Capital Improvements Element**

- A. Organization of the Element
- B. Revenue Sources and Techniques
- C. Allocation of Costs
  - 1. Project Costs
  - 2. Services Standards/Level of Service
  - 3. Phasing of Improvements
- D. Capital Improvement Policies

List of FiguresScale

|       |                                         |              |
|-------|-----------------------------------------|--------------|
| I.1   | General Plan Organization               |              |
| III.1 | El Dorado County Location               | 8-1/2" x 11" |
| III.2 | Existing Land Use                       | 1" = 1 mile  |
| III.3 | Land Use Plan                           | 1" = 1 mile  |
| IV.1  | Community Plan, Georgetown Divide       | 1" = 2,000'  |
| IV.2  | Community Plan, Lower Western Slope     | 1" = 2,000'  |
| IV.3  | Community Plan, Upper Western Slope     | 1" = 2,000'  |
| IV.4  | Community Plan, South County            | 1" = 2,000'  |
| IV.5  | Community Plan, American River Corridor | 1" = 2,000'  |
| V.1   | Circulation Plan                        | 1" = 1 mile  |
| V.2   | Scenic Highways                         | 11" x 17"    |
| VI.1  | Water Districts                         | 11" x 17"    |
| VI.2  | Fire Protection Districts               | 11" x 17"    |
| VI.3  | School Districts                        | 11" x 17"    |
| VI.4  | Community Service Districts             | 11" x 17"    |
| VI.5  | Existing Recreational Facilities        | 1" = 1 mile  |
| VII.1 | Land Resources                          | 1" = 1 mile  |
| VII.2 | Water Resources                         | 1" = 1 mile  |
| VII.3 | Natural/Open Space Areas                | 1" = 1 mile  |
| VII.4 | Hazardous Areas                         | 1" = 1 mile  |



## **7.0 WORK PROGRAM REVISIONS**

The Work Program establishes the tasks, methodologies and products which are to be conducted and prepared pursuant to the General Plan Update, Zoning Ordinance and General Plan EIR. As a result of the reconnaissance phase, several issues have been discovered which result in the need for modifications to the existing Work Program. The necessary modifications to the Work Program involve four primary issues: 1) the development of a County GIS and its applicability as a development monitoring system, 2) the level of detail anticipated for infrastructure analysis, 3) the acquisition of recent aerial photographs for the county, and 4) providing a more clear, concise definition of the county's responsibilities.

### **7.1 Necessary Revisions**

#### Development Monitoring System

SCA has examined the numerous alternatives available to the county regarding the development of a county-wide geographic information system (GIS). These alternatives are fully discussed in Section 5.0 of this Reconnaissance Report. Based on numerous interviews with key county personnel and our appraisal of the county's current efforts, we recommend that the county should pursue the implementation of a data management and/or GIS system on an independent, separate course, apart from the general plan update process. An ad-hoc committee has already been formed by numerous county departments for this purpose. This GIS committee should be encouraged to define the county's GIS needs and to begin to implement a system by making staff time and funding available.

If a GIS committee can develop a system concurrently with the preparation of the general plan update, then this system should be used, among its many other potential uses, as the General Plan Development Monitoring System. An effective development monitoring system should have three essential components. First, it should be capable of tracking the issuance of building permits. The county already has such a system in place which is being used by the County Assessor's office. Secondly, a monitoring system should be capable of tracking and recording so-called "pipeline projects", or those projects for which applications have been filed with the county. There are many "off-the-shelf" software packages available at a cost of less than \$1,000 which can accomplish this task. The county should implement such a system at the earliest possible time. The third component of an effective monitoring system is an overall data base manager with the capability of producing reports, providing cumulative analyses and monitoring county-wide development. The county's efforts towards developing a GIS should be targeted at providing this third essential function of a monitoring system.

The county-wide land use data base which is necessary to run an effective monitoring system will be developed by the General Plan Team as a product of the plan. However, making this data base accessible and usable to county staff may require additional system design and re-programming efforts. The scope of these efforts will be dependent upon: 1) the type of system which the county develops, 2) the extent to which the system is implemented and available at the time the General Plan Update is completed, and 3) the capability of county staff to operate and maintain the system. These factors can only be determined further along in the general plan process. Therefore, the discussion regarding the formulation of the final development monitoring system (Task 10.3 in the Work Program) needs to be revised to reflect the uncertainties. It is impossible to predict the amount of additional work, if any, which may be necessary to design and re-program the county land use data base so that it will be compatible with the data management system (or GIS) which the county develops. Revisions to the Work Program which are necessary to reflect this circumstance are shown in the Revised Work Program (Appendix A), Task 10.3.

### Infrastructure Analysis

The second necessary change to the Work Program pertains to the analysis of public infrastructure. Currently, there are more than 200 small water districts, and three major public utility districts which supply water and wastewater services throughout the county. Most, if not all of these small water districts will not have the capability of providing additional services for new development. It would be a major and unnecessary task to attempt to document and analyze each of these individual water districts. Only those major service providers with the potential for significant expansion to accommodate new growth should be thoroughly evaluated. Therefore, the current Work Program must be revised to state that only those water systems within state jurisdiction (more than 200 connections), wastewater systems within the regular Water Quality Control Board jurisdiction and significant public drainage systems will be discussed. This change in the Work Program is not a change in the anticipated level of effort, but simply a clarification of the scope of work to be conducted.

Additionally, to have the most effective use of the engineering expertise of Psomas Associates, the efforts of this group will focus on infrastructure issues on the western slope of the county. Infrastructure issues within the Tahoe Basin have already been extensively documented, and will be summarized and presented in the general plan by SCA. The changes to the Work Program necessary to reflect the clarification can be found under Task 5.5 of the Revised Work Program (Appendix A).

### Obtaining Aerial Photographs

Recent aerial photographs of the entire county are available through numerous sources including the U.S. Geologic Survey Department, local engineering firms, and local aerial survey companies. These aerial photographs would be an extremely valuable tool for identifying existing land use characteristics and for mapping natural resource information. The county should obtain reproducible copies of these aerial photographs at a 1"-2,000 foot scale for all county lands which are currently mapped under the Genge Mapping System.



These photographs should then be made available to the consultant team for their use in preparing the existing baseline conditions report.

### County Staff Responsibilities

Under current contract provisions (Attachment D, County Responsibilities), the county has agreed to allocate 100% of the time of a principal planner, two associate planners, and a planning intern to work on the General Plan Update. Based upon the availability and level of participation by county staff to-date, we strongly recommend that the specific responsibilities which are to be conducted by county staff be determined and agreed upon on a quarterly basis. We recommend that an additional work task, 12.3, be added to the Work Program stating that consultant shall coordinate with the county's project manager on a quarterly basis to firmly establish the specific tasks to be accomplished by county staff during the up-coming quarter.

During the quarter beginning in January of 1990, we have anticipated that the majority of county staff time will be allocated to the following tasks:

- . Task 2.1, Establish Advisory Committees
- . Task 3.2-3.3, Coordination With Surrounding Counties
- . Task 5.3, Defining Existing Land Use and Community Character (establishing the land use data base)

## **7.2 Options for County Consideration**

In addition to the necessary changes to the Work Program, several additional issues of potential work items have been discovered during the reconnaissance phase. These additional work items are presented for county consideration.

### County-Wide "Visions Report"

Many County residents and decision-makers have expressed concerns that the establishment of goals and objectives for the General Plan occurs too late in the process. The timing for the development of goals and objectives is intentionally not programmed until May or June of 1990 to allow time for baseline planning data to be collected. An understanding of existing conditions is necessary before future goals and objectives can accurately be stated. However, it may be very positive to establish from the outset of the general plan process a vision of what county residents see or hope for the future of their county. This additional work item option consists of a series of five public workshops conducted by SCA, a separate public facilitation consultant, and county staff. SCA would employ a public facilitator experienced in conducting such workshops in order to solicit as much input from the public as possible during the course of the workshops. The purpose of these workshops would be to solicit county residents' opinions or desires about their vision for the county in the year 2010. Based upon the responses from these workshops, SCA would prepare a Visions Report

documenting the views of county residents regarding such issues as where future development should occur, setting priorities for the use and/or conservation of natural resources, and establishing definitions for such terms as "urban", "rural", and "agriculture". The estimated cost for this additional work item is \$20,000, and is included in the Revised Work Program as Task 2.6.

#### Reviewing General Plan Amendments

Numerous applications for general plan amendments, specific plans, and other major development projects are anticipated to be requested during the time frame in which the General Plan Update will be prepared. In fact, more than 20 applications to amend the Land Use Element of the General Plan have been filed in the past six months. The county will likely be adopting an interim action plan for the purpose of processing such applications. It is also likely that the Interim Action Plan will defer action on major applications, and recommend that such requests be incorporated into the formulation of land use alternatives in the general plan process. The existing Work Program provides for the development of two alternative land use plans, graphically expressed at a conceptual level only. Specific development projects could not be adequately incorporated or evaluated under this process. If the county would like the general plan process to allow for a more detailed evaluation of specific development proposals or proposed amendments to land use designations, then the existing Work Program will need to be revised. We suggest that each project which is deferred by the county for inclusion into the alternative evaluation phase of the general plan process should be separately and independently evaluated. The evaluation should discuss the consistency of the proposed project with the conceptual land use alternatives, assess the implications of the proposed project on the demand for public services, and discuss the potential impacts of the project on the transportation system, wildlife habitat, agricultural productivity, and natural resource conservation. We are unable to determine the number of applications which may be received by the county and subsequently defer to the alternative evaluation process. Therefore, we suggest that the costs for evaluating all of these potential projects should be negotiated when all applications have been submitted. The proposed revision to the Work Program which would be necessary to include this additional task is shown in the Revised Work Program, Task 6.5.

#### Review of Development Permit Application Process

Based on several interviews with county staff and our understanding of the massive work load which the Current Planning Division is currently faced with, SCA would also recommend, as an option for county consideration, the preparation of a report which reviews and analyzes the county's current development processing procedure, and makes recommendations for expediting development and enforcement.

Sedway Cooke Associates is ideally suited for this assignment. Two members of its staff are both lawyers and planners, and would be working on the project. SCA has immediate familiarity with regulatory procedures and provisions which constitute the basis for processing. It has also undertaken many analyses of government procedures of the same character proposed here. Finally, because SCA will be preparing a new zoning ordinance for the



county, we will be in the position of providing important insight into how the administrative procedures can be enhanced to foster sound development consistent with the ordinance and the general plan.

Approach Our basic approach to this study would be to ascertain the precise issues which should be addressed, whose resolution will be of the greatest benefit to the county. This will be accomplished through interviews and a reconnaissance which will enable us to hone in quickly on those aspects considered most troublesome.

Some of the questions we will initially explore are:

1. Is the "processing problem" due to improper procedures, duplication of effort, lack of coordination or inconsistency of policy, poor management, poor training, lack of comprehension by staff or users, or inappropriate ordinances?
2. What is the real audience for this simplification/streamlining/expediting program? If it is, as anticipated, a range of persons or interests, how can their diverse objectives be reconciled (e.g., the staff's legitimate concern for thoroughness and quality of submissions vs. the applicant's legitimate concern for decisive, clear-cut and prompt action)?
3. Are the various involved county agencies working in tandem and seeking the main county goals? What are their disparate needs and orientations?
4. Is the basic problem an inability of the involved parties to see and comprehend the overall process?
5. Is the basic problem an inability to overview the array of current applications? To what extent would computerization or a computerized display be warranted and feasible?

Work Program We recommend the following additional work program to assist the county in its efforts to expedite development review procedures, assure administrative efficiency, reconcile decisions with the development objectives of the county, and disseminate information properly.

**TASK I - Survey Existing Development Procedures, Including Types of Development Fees, Applications and Permits.** Sedway Cooke Associates would accomplish this task with assistance of county staff, which would provide historic overview, current overview and actual forms used in procedures. It would also involve additional interviews with staff involved in the various functional areas.

**TASK II - Survey Perceptions and Attitudes of Key City Participants in Development Review and Policy.** SCA would interview key county participants, including representatives of the

Board of Supervisors and representatives of other public agencies engaged in development review. The purpose would be to identify the range of attitudes regarding development processing and review and its role in county activities.

TASK III - Survey Perceptions and Opinions of Key Private Sector Participants in Development Processing. Key private sector participants who have been involved in the development procedures of the county will be interviewed to secure a representative range of opinions.

TASK IV - Analyze Recent Development Proposals and Progress Through Development Processing. Typical projects will be selected, with input from staff, to seek to determine fundamental causes of any delay and inconsistency of action. These "case studies" will seek to shed light on the location of any "bottlenecks" and basic reasons therefore. They will provide the basis for analysis and determination of basic fees, fixed or hourly.

TASK V - Draft Report to the County Which Includes Survey Results, Major Findings, and Specific Recommendations for Improvement. It is anticipated that reasons for problems may relate to a host of possible causes. These will be identified and their relative importance conveyed. Recommendations for ameliorating significant problems will be presented, along with specific conclusions on administrative policies, procedures, staffing, organization, equipment, work-flow and fees.

TASK VI - Participation in Meetings, Hearings, etc. Relating to Recommended Changes. The Consultants will be available to participate in, and make presentations at public meetings and hearings related to proposed changes.

TASK VII - Prepare Final Report and User Handbook. Based on public and staff input, the final report will be prepared. Included within this report would be an attractive handbook for use by staff and applicants which describes the various procedures and ordinances involved, and also an administrative manual for easy reference and/or training of staff members involved with development procedures.

The total estimated cost of this option is \$35,000. We recommend that a separate contract be prepared between SCA and the county if this option is chosen.



### Preparing Standardized Application Forms

As a separate option, or in addition to Task I through VII, SCA proposes to work with county planning staff to develop new standardized application forms. County planning staff and representatives of the development community have expressed their dissatisfaction with the forms and handouts used to initiate applications for general plan amendments, zoning changes, subdivisions, parcel maps, use permits and variances. Current forms either do not exist, are inconsistent, or do not provide staff with necessary information to effectively process applications. These new forms would be made available at the County Community Development Department for project applicants' use. The estimated cost for this additional work item is \$10,000, and is included in the following Revised Work Program under Task 11.1. This tasks could be done separately within four months after county authorization or could be incorporated into the full permit process review discussed above. A revised version, if necessary, will be submitted along with the new zoning ordinance.

### Expanded Recreation Element

Recreation plays a very important economic and social role within El Dorado County. Recreational opportunities are abundant throughout the county, including such major resources as water-oriented activities at Folsom Lake, tours and historic attractions at the Marshall Gold Discovery State Park, white water rafting on the South Fork of the American River, skiing, fishing and camping within the Eldorado National Forest, and the world class recreational and tourism resources at Lake Tahoe. Although these major recreational resources are primarily managed and regulated by state, regional or federal agencies, the county lacks an overall program with which to coordinate and integrate these resources into an overall county plan.

Additionally, as the county continues to grow and become more urbanized, adequate recreation facilities for this urban population will be in greater demand. Currently, the county relies on schools and several smaller community service districts to provide such facilities as playgrounds, ballfields, open play areas, and court games.

Under our existing work program, recreation is to be incorporated as a sub-component of the public services element. This element will also include plans for water, wastewater, fire protection, law enforcement, etc. As an option for county consideration, SCA could create a separate general plan element for recreation. Such an element would involve a greater effort on the part of the General Plan Team than is currently envisioned under our existing work program. A full recreation element would include a complete inventory of existing recreational facilities within the county, an inventory which is currently unavailable or incomplete. It would also establish an overall parks acquisition plan for the county based on existing and future needs. It would establish park design guidelines and development standards, and it would contain a complete implementation program including assessing the potential contribution of development fees and in-lieu dedications, the role of assessment districts and additional community service districts, and strategies for pursuing federal and state grants. The estimated costs for incorporating a full recreational element into the general plan is estimated to be approximately \$10,000.

### 7.3 Summary of Revised Work Program Cost

The following list provides a summary of costs pertaining to the necessary and optional Work Program revisions.

| <u>Task</u>                       | <u>Description</u>                                       | <u>Cost</u>                                                  |
|-----------------------------------|----------------------------------------------------------|--------------------------------------------------------------|
| <b><u>Necessary Revisions</u></b> |                                                          |                                                              |
| 10.3                              | Final Development Monitoring System                      | To be determined                                             |
| 5.3                               | Aerial Photographs                                       | County will obtain photos through separate funds             |
| 5.5                               | Infrastructure Evaluation                                | No cost revision necessary                                   |
| 12.3                              | Coordination of County Responsibilities                  | No cost revision necessary                                   |
| <b><u>Optional Revisions</u></b>  |                                                          |                                                              |
| 2.6                               | "Vision" Report                                          | \$20,000                                                     |
| ----                              | Review of County Permitting Process                      | \$35,000                                                     |
| 11.1                              | Permit Application Forms                                 | \$10,000                                                     |
| 6.5                               | Evaluation of Specific Alternative Development Proposals | To be negotiated, depending on number of proposals received. |
| 7.3.7                             | Expanded Recreation Element                              | \$10,000                                                     |

### 7.4 Revised Work Program

Appendix A provides a Revised Work Program which reflects the necessary and optional revisions previously discussed. Those tasks which have been recommended as additions to the Work Program are shown in underlined text, and any recommended deletions to the existing Work Program are shown in lined-out text.



## **APPENDIX A**

### **REVISED WORK PROGRAM**





## **REVISED WORK PROGRAM**

The work program is described below. The following abbreviations are used:

SCA - Sedway Cooke Associates

EPS - Economic and Planning Systems

ERCE -ERC Environmental and Energy Services Co.

The two other firms on the consulting team are Omni-Means and Psomas.

Unless otherwise indicated, one camera-ready and 20 copies of all written work products will be submitted. All copies will be 3-hole punched. County will provide binders.

### **TASK 1.0: RECONNAISSANCE**

#### **Objectives:**

- To establish a working relationship with county staff, Planning Commissioners, and the Board of Supervisors.
- To identify and collect all available data and determine its usefulness in the preparation of the new General Plan.
- To refine the work program, schedule, and budget following an assessment of the data, funding priorities, and the issues to be addressed by the Plan.

#### **1.1 Expectations Workshop**

The project will be initiated with a two-part workshop to be directed by SCA and its associated consultants. The first part of the workshop will be non-technical and will be issue-oriented. County Supervisors and Planning Commissioners will be invited to attend. The second part of the workshop will be more technical in its focus. The staff of county departments and service districts will be invited to attend. In both workshops, the consultant team will solicit ideas about the major issues to be addressed, data sources, approaches to citizen participation, revisions to the area plan boundaries, and approaches to the Zoning Ordinance. The workshop will also provide an opportunity to go through the work program task by task so that questions about the program can be answered and possible changes can be discussed.

#### **1.2 Determine Project Issues and Objectives**

SCA, working closely with county staff, will prepare a list of people to be interviewed to gain a perspective of the problems and opportunities facing El Dorado County. These people

may include selected members of the Board of Supervisors and Planning Commissioner, county department heads, service district representatives, and interest groups. Policies that have guided the area's development to date will be discussed and the effectiveness and relevance of these policies will be evaluated. Concerns about the future and suggestions for new policies and programs will be identified. The discussions will focus both on broad, countywide concerns (such as quality of life) and concerns that are specific to geographic areas (such as mass pad grading in Cameron Park).

A secondary purpose of the interviews will be to explain the overall work program and discuss alternatives for community participation and interagency coordination. Up to twelve (12) interviews will be conducted.

### **1.3 Collect and Assess Relevant Maps, Reports, and Data**

This task will occur simultaneously with Task 1.2. Prior to the individual interviews, SCA will provide county staff with a list of the specific data required to develop the plan. If already available, this information will be collected upon meeting with each department or district contacted in Task 1.2. Materials to be collected include all area plans, previous General Plan elements, specific plans, ordinances, ecological and environmental studies, traffic studies, market reports, historical and cultural studies, engineering (utility) studies, housing studies, city General Plans (Placerville and South Lake Tahoe), special plans for the Tahoe Basin, and miscellaneous data bases and maps that may be of some use in the General Plan. These materials will be catalogued and maintained in a project library. The library will be continually expanded throughout the duration of the work program.

Each item collected will be reviewed and appraised for its potential use in the planning program. The need to update data or obtain additional data will be determined. SCA will review the existing elements of the El Dorado County Plan. Working with county and service district staffs, SCA will determine the effectiveness and relevance of these policies.

### **1.4 Develop Mapping and Information Management Program**

The successful development of the new General Plan will require the ability to construct, manipulate, and apply a rather complicated data base describing land use conditions and other variables in geographic subareas of the county. This data base will be required for:

- Collecting and documenting base year land use statistics;
- Allocating the development proposed in the land use alternatives;
- Providing data for driving the transportation model and other modeling efforts; and
- Providing a basis for ongoing monitoring and enforcement activities.

Additionally, the county has identified the goal of achieving a geographically-based computerized information system. It will be important to make all data gathering and assembly efforts consistent with future implementation of such a system.



Each member of the consultant team will play a role in developing the land-use data base. Staff will also be required to provide existing information and assist with data collection and interpretation. SCA will be responsible for gathering and organizing land use and related geographic information. Omni-Means will advise SCA on the transportation modeling structure requirements for the data base. ERCE will gather and organize natural resource information. EPS will design a methodology for storing, sorting, and analyzing land use data. The data base system will be developed with "Progress" (tm), a powerful data base management program for IBM PC and compatible computers. Data will be provided to the county in a form suitable for its use.

As part of this task, Psomas and SCA will collect data about map use, map production, data handling activities, current and planned activities by other Departments, including Transportation and Surveying, and potential geographic information system (GIS) applications in each participating organization. Issues of compatibility and possible consolidation of GIS efforts will be addressed. Technical alternatives for implementing a geographically-based computer information system will be developed and a detailed work program for implementing such a system will be spelled out.

~~Psomas~~-SCA will summarize the findings of this task in a profile which identifies the potential applications of GIS, its potential users in El Dorado County, and the recommended approach and cost for implementing a GIS system. The findings summary will be reviewed with departmental staff and will be revised as needed.

### **1.5 Recommend Interim Planning Controls**

Since adoption of the General Plan may not occur before 1991, interim guidance is needed for development proposals made between now and that time. Requests for General Plan amendments have skyrocketed during the last few years; the prospects of a new General Plan may fuel this trend and cause an even greater volume of requests. SCA will work with the county to evaluate possible interim measures for regulating development between now and the time the plan is adopted.

### **1.6 Prepare Reconnaissance Report and Revised Work Program**

Based on the findings of this task, SCA will revise the work program, schedule, and cost estimate. The revised program will include an allocation of work between county staff and consultant staff. As part of this task, an outline of the General Plan will be prepared. The outline will include the proposed organization of the plan, and a list of graphics. Particular attention will be devoted to establishing a workable hierarchy of planning subareas. An issues memorandum also will be prepared for the Zoning Ordinance review effort (Task 11).

#### **PRODUCTS:**

1. Three-part reconnaissance report on (1) planning issues in El Dorado County, (2) data availability and adequacy, and (3) revised work program and schedule
2. Memorandum on recommended geographic information systems



3. Recommendations on interim planning controls

MEETINGS:

1. Expectations Workshop
2. Individual Interviews (12)
3. Joint Planning Commission/Board of Supervisors Workshop

**TASK 2.0 COMMUNITY OUTREACH AND PARTICIPATION PROGRAM**

**Objectives:**

- To provide a vehicle for community input
- To educate the community about the planning process and the importance of a General Plan
- To improve the chances of plan acceptance by involving the public in plan formulation
- To ensure that the plan reflects the goals and objectives of community residents

**2.1 Establish Advisory Committees**

Based on the direction provided in Task 1, a program for community participation will be set forth. The framework recommended here is subject to change based on Task 1.

There are two basic approaches to achieving citizen input: a formal, organizational structure, with constant representation; or an open, changing, less structured approach (surveys, town meetings). SCA's preliminary recommendation is that both approaches should be used in the El Dorado General Plan program. Given the magnitude of the program and the range of issues to be addressed, creation of a policy steering committee is warranted.

A great array of citizen and interest groups have already expressed an interest in the El Dorado County General Plan. Many of these entities were formed for other reasons (i.e., citizen action for specific purposes or projects) but have realized that fighting small fires here and there, now and then, is not an entirely efficient use of time and resources. These groups should be kept apprised of the General Plan program and invited to participate as it progresses.

Two advisory committees are recommended<sup>\*</sup>. The first, a **technical advisory committee**, would be composed of staff from county Departments (Planning, Public Works, Transportation, Environmental Health, Administration, etc.), a representative from the CAO's office, staff from special agencies or districts (El Dorado Irrigation District, Tahoe Regional Planning Agency, Georgetown Divide Recreation District), and staff from the cities of Placerville and South Lake Tahoe.

The second group, a **policy advisory committee**, would include at least one representative of the Board of Supervisors, at least one representative of the Planning Commission, and between five and ten additional members. These members would represent different geographic areas of the county and different interests. Existing community groups with specific interests in business and commerce, the environment, water, transportation, recreation, and development as well as groups representing a particular geographic area should be contacted to nominate prospective members. This group can steer the General Plan's policies and should also play a role in the zoning ordinance revision and the development monitoring system.

The policy advisory committee would convene jointly with the Planning Department staff and the consultant team at several junctures in the work program for formal presentations and discussion sessions. Eight meetings are planned. To the extent possible, these meetings will be scheduled in conjunction with other meetings or workshops. Additional meetings may be budgeted if desired.

In addition to the two advisory committees, a **general plan assembly** would be established. Membership in this group would be open to anyone interested in the General Plan process. The county staff would attend the meetings and summarize the results. The involvement of the consultant team would be minimal.

Active involvement by the community at large will further enhance the quality and relevance of the plan. This involvement will be obtained through a media management plan, community workshops, public hearings (covered under a separate task), and a series of optional services which are highlighted below.

## **2.2 Media Management Plan**

The media management plan will be designed to motivate people to participate in the planning program. Its intent is to prime the citizenry for more informed and constructive participation in the process.

2.2.1 Initiate Newspaper Clippings File. SCA has found that the local media can be a particularly useful source of information to determine issues and attitudes in the community. We routinely subscribe to local papers in the jurisdictions in which we

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~~<sup>\*</sup> The approach recommended here is preliminary only and will be modified following the Task 1 evaluation.~~

work and establish topical files of articles concerning planning issues. Such a file would be maintained through the duration of this project.

**2.2.2 Prepare Press Releases and Press Notification.** Working with county Planning Department staff, SCA will keep the local media informed of the planning program and solicit their assistance in publicizing planning issues, concepts, and meetings. Accompanying each major product of the General Plan program, a press release summarizing the findings will be prepared.

### **2.3 "Round 1" Public Workshops - Issues**

SCA and the Planning Department will jointly conduct community workshops at locations throughout El Dorado County to solicit information about planning issues in the county and in specific communities. The discussion will focus on setting general goals for the county and more specific objectives for the communities represented at the workshop. The meeting will include a slide show which documents the general issues to be addressed by the plan.

SCA has budgeted for four "Round 1" workshops. We recommend that up to 10 additional workshops, to be conducted by county Planning Department staff, be scheduled.

### **2.4 "Round 2" Public Workshops - Options**

SCA and the Planning Department will jointly conduct community workshops at locations throughout El Dorado County to solicit feedback on alternative plans for the county as a whole and alternatives for the specific communities represented at the meeting. The policy choices for each community will be addressed. The meeting will include a slide show which depicts the key areas in each community where development choices are being considered.

SCA has budgeted for two "Round 2" workshops. We recommend that up to five additional workshops, to be conducted by county Planning Department staff, be conducted.

### **2.5 "Round 3" Public Workshops - Solutions**

SCA and the Planning Department will jointly conduct community workshops at locations throughout El Dorado County to present preliminary land use plans and policies for the county and individual communities. The workshops will include a slide show that summarizes the key features of the plan and major recommendations for the specific community present. Four workshops have been budgeted. We recommend that up to 10 additional workshops be conducted by county staff.



## **2.6 County Visions Report (Optional Revision)**

SCA and the Planning Department will jointly conduct a series of 5 community workshops at locations throughout El Dorado County. These workshops will attempt to solicit the hopes, expectations or visions which residents have regarding the future of land use and development in the county. Discussions will focus on establishing a consensus (or a set of possible alternatives) regarding where future development should occur, how to define the terms "rural", "urban" and "suburban" within the context of El Dorado County, and establishing priorities for the use and/or conservation of natural resources. The results of these workshops will be documented by SCA in the form of a county-wide Visions Report.

## **2.7 Optional Services**

There are many other techniques available for soliciting citizen input. The services listed below have not been included in the project budget but should be considered as options for enhancing community participation. The focus of the optional services is community outreach; literally bringing the General Plan into the living rooms of El Dorado County residents through video and printed media. These services include:

- A video presentation of the draft General Plan (suitable for broadcast on local cable TV);
- A monthly project newsletter, updating the status of the Plan, to be mailed to interested County residents;
- A community-wide mail-back questionnaire (we would recommend a sample of 500 residents, stratified by age, sex, socio-economic status, and geography);
- A glossy executive summary of the Plan, formatted for inclusion as a newspaper supplement, or delivered in a mass mailing to all county residents; and
- Periodic guest-speaking engagements (Rotary, Chamber of Commerce, Sierra Club, local schools).

Cost estimates for these services can be provided ~~during the Task 1 evaluation.~~

### **PRODUCTS:**

1. Newspaper Clippings File
2. Press Releases Accompanying Major Report Submittals
3. County-wide Visions Report (100 Copies) (Optional Revision)
4. Optional "Extras" (listed above)

### **MEETINGS:**

1. Eight workshops with Policy Advisory Committee
2. Four "Round 1" workshops at miscellaneous locations
3. Two "Round 2" workshops at miscellaneous locations
4. Four "Round 3" workshops at miscellaneous locations

## **TASK 3.0: INTERAGENCY COORDINATION / CONFLICT RESOLUTION PROGRAM**

### **Objectives:**

- To establish an on-going professional relationship between all the public agencies whose cooperation will be necessary or helpful in developing and carrying out the plan's programs
- To coordinate the independent planning efforts of the county, the cities of Placerville and South Lake Tahoe, adjacent counties, federal agencies with jurisdiction over county land, and the purveyors of public services such as water and recreation
- To encourage the sharing and joint use of data so that plans reflect common assumptions about the future and are accomplished as efficiently as possible

### **3.1 Inventory and Analysis of Inter-jurisdictional Planning Framework**

The various agencies that have a stake in the outcome of the county plan will be inventoried and their potential role in the planning program will be identified. Most of these agencies will be contacted directly during Task 1.2 to determine their internal planning functions, the usefulness of their agencies' data, and their objectives regarding the county General Plan. Feedback received at these initial meetings will be used to prepare a memorandum on the planning framework in El Dorado County.

### **3.2 Coordination with Surrounding Counties**

SCA will work with county staff to set up a meeting (two if necessary) to include the planning staff of Sacramento, Placer, and Amador Counties and the Cities of Placerville, South Lake Tahoe, and Folsom. The purpose of the meeting(s) is to determine the status of county and city plans in these jurisdictions, the way that each jurisdiction is handling issues that may also affect El Dorado County, and those other plans or projects in these counties and cities that may impact El Dorado County. Exchange of information with planners in these counties and cities should minimize the possibility that one might propose to manage development or resources in a manner that might conflict with the proposed plan of another.

### **3.3 Maintain Regular Contact With Agency Representatives**

This task would be largely a county staff responsibility. Its purpose is to obtain feedback from the representatives of each agency as each General Plan product is submitted. Providing the agencies with an opportunity to review and comment on background reports ensures a higher level of data accuracy and builds consensus on the policies and programs to be recommended. We suggest that a mailing list of agency representatives be created during Task 1 and that General Plan products be forwarded to each representative. A fixed period (two to four weeks) for comment and feedback should be provided for each product.

## PRODUCTS:

1. Memorandum summarizing inter-jurisdictional planning framework

## MEETINGS:

1. Two meetings (total) with Sacramento, Placer, and Amador Counties and selected cities

## TASK 4.0: IMPLEMENT MAPPING AND INFORMATION MANAGEMENT PROGRAM

### Objectives:

- To prepare presentation and report-scale base maps for use in the planning program
- To oversee the production of new parcel-specific base maps, if such maps are found to be financially feasible

### 4.1 Prepare Project Base Maps

SCA will prepare two countywide base maps for use in the planning program. The first will be generated using an existing reproducible county base map and will be 1" = 1 mile. Appropriate legend and title block information will be added to the map and a reproducible mylar will be prepared. The second base map will measure 11" x 17" and will contain very generalized geographic data (major roads, rivers, communities). An original map will be prepared and reproduced on Photo Mechanical Transfers (PMTs) for use in the planning documents. Neither of these base maps will depict parcel lines, and both are intended to show generalized information only.

### 4.2 Prepare Working Maps<sup>a</sup>

Because the county presently lacks an acceptable set of countywide parcel maps for data collection, SCA is proposing an interim mapping program. This program will use pin-registered 1"=2000' USGS base maps for the entire county, and 1"=400' assessors parcel maps for urbanized areas. SCA requests that the county provide one set of reproducible assessors parcel maps for selected areas (such as Cameron Park, El Dorado Hills, and rural town centers). Maps at both scales will be spliced accordingly to reflect the planning sub-areas defined in Task 5.1. Blackline prints of the spliced maps will be used to record information. The maps would be sufficiently accurate so that data could later be transferred to a GIS mapping program.

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<sup>a</sup> ~~This sub task is subject to change following the recommendations of Task 1.4.~~



### **4.3 Advise County on Preparation of Parcel-Specific Base Maps**

Permas, EPS and SCA will advise the county on the best approach to prepare parcel-specific base maps. Our initial recommendation is that these maps be prepared using the USGS 1"=2000' base, with the scale modified where appropriate to recognize denser patterns of land division.

### **4.4 Develop Land Use Plan Maps and Zoning Maps**

Preparation of land use plan maps and zoning maps is addressed under Tasks 7 and 11 and is not included in the Task 4 budget.

#### **PRODUCTS:**

1. 1" = 1 mile base map
2. 11 x 17 base map
3. Interim working base maps (1"=2000', 1"=400')

## **TASK 5.0: DEVELOP BASELINE PLANNING DATA**

### **Objectives:**

- To document existing and projected conditions so that issues in the county can be more effectively resolved
- To establish a foundation on which opportunities and needs for the future can be evaluated
- To ensure that the General Plan is based on accurate, reliable information;
- To develop a comprehensive, internally consistent information base for use by all those who have stake in the outcome of the plan

### **5.1 Define Planning Areas**

The existing system of subarea planning, while well-intended and democratic, has failed to produce an overall vision of El Dorado County's future. Our observation is that this "grass-roots" or "bottom up" approach to planning can only work if it occurs within a highly structured, internally consistent framework, balanced by very basic assumptions about the future of the county as whole. Put simply, the sum of the 24 area plans now in use by El Dorado County does not equal the whole.

SCA proposes a complete redefinition of the planning area boundaries. We propose a smaller number of planning areas--perhaps 10 or 12--and we propose that these areas encompass the entire county, not just the private lands on the west slope. The new

planning area boundaries would be determined jointly by SCA, county staff, and Board of Supervisors. The boundaries would be determined primarily by physiographic or cultural features rather than by arbitrary features such as section lines. Sub-area boundaries would provide the basis for data collection and analysis. Where necessary, traffic analysis zone (TAZ) boundaries in the West Slope Traffic Model would be revised so that TAZ data could be aggregated to the planning area level throughout the planning program.

A draft map of proposed planning areas will be circulated and revised after comments are received.

## **5.2 Prepare Economic and Demographic Profile and Countywide Projections**

The consulting team will compile existing demographic data to create a socio-economic profile of El Dorado County. This task will be directed by EPS.

**5.2.1 Market Overview.** This task involves an evaluation of the county's economy and addresses current employment and labor force patterns, business and industrial locations, tourism, and other resource-based economic activities. The economic base study will serve as a basis for subsequent forecasts of employment and determining markets for commercial and industrial land.

The sub-areas defined in Task 5.1 will be assessed for their ability to capture potential residential, commercial, and industrial development. This assessment will be based on EPS' El Dorado County real estate market data base, available data on building permit trends, information about committed or pending developments, and additional data to be collected as needed.

The assessment will focus on the capability of county sub-areas to capture potential new uses given competing developed and an analysis of absorption of potential land uses and the related phasing of the General Plan revision. The market analysis will focus on the period 1990-2010.

The following activities will be involved:

- Compare the competitive position of El Dorado County market sub-areas with each other and to other existing or undeveloped areas in the subregional market area. (Evaluation criteria such as economic base and personal income will be analyzed separately and presented in comparative terms);
- Develop conclusions about the land use requirements for the projected levels of development;
- Develop estimates of the maximum amount of development (acreage, dwelling units, and floor area) that could be captured in each planning area considering the holding capacity of that area and the ability of the area to capture market share; and

- Based upon market information, develop recommendations regarding the phasing or timing of future land use designations and major capital improvement projects.

5.2.2 "First-Cut" Population and Employment Projections. County-wide projections prepared by the Department of Finance and other organizations will be reviewed and modified as necessary. After the land use data base has been compiled and development trends have been assessed, sub-area projections will be prepared. The subarea projections will be based in part on the capacity of the sub-areas as determined by the inventory of lands presently designated for development to be conducted in Task 5.3. The projections may be revised during future tasks following an evaluation of land use alternatives and development constraints.

### **5.3 Existing Land Use and Community Character**

Existing land use mapping and tabulation will be conducted by the county, under the direction of SCA staff. It is essential that the mapping and information management program is in place before this task starts so that mapped data is collected in a format that permits easy conversion to a geo-based mapping system.

SCA will work with the county to develop an appropriate land use classification system. The system should include categories which reflect the unique development pattern of El Dorado county, but should not be overly detailed or elaborate. A tabular and mapped record of existing land uses will then be compiled using aerial photographs, windshield surveys, and tax assessor records. County shall obtain recent aerial photographs at 1"=2,000 foot scale for use in identifying existing land use characteristics. Copies of these photographs shall be provided to SCA.

SCA will work with the county in recording the data on the working base maps generated in Task 4. The maps will be designed for working purposes only and will not be reproducible.

Acreage data by land use category should be tabulated for traffic analysis zones by county staff. These will be aggregated to the planning area level for easy discussion and analysis. Vacant land presently designated for development should be recorded for each traffic zone as an indicator of current development potential in each planning area. The information will be compared with previous baseline inventories to verify the accuracy of the data and determine recent trends. This task will also include an inventory and mapping of all "pipeline" developments and pending projects.

As part of this task, SCA and county staff will document the unique visual and architectural qualities of the county. For each community in the county, attention will be given to recording existing physical and aesthetic qualities of the built and natural environments. Features that should be changed, preserved, or enhanced will be identified. The evaluation will address:



- The character and image of different residential areas;
- The character of distinct commercial districts and major road corridors;
- Places of historical or cultural interest; and
- Scenic corridors and vistas

#### **5.4 Natural Resources and Hazards**

Documentation of existing natural resource conditions and hazards shall rely primarily on existing data sources, including existing EIRs, the area plans, aerial photography, etc. Limited field reconnaissance may be performed as part of the biological inventory. The data collection effort will concentrate on the West Slope, generally from Pollock Pines to the west. Data for the Tahoe Basin will be assembled from studies already prepared by the Tahoe Regional Planning Agency. The following subtasks are defined for Task 5.4.

- 5.4.1 Agricultural Resources/Soils. Information on agricultural resources and prime agricultural soils will be obtained from the existing area plans, the three Resource Conservation Districts, and the Agricultural Commissioner. ERCE will map the prime soils for the West Slope using the 1974 soil survey.
- 5.4.2 Biological Resources. An inventory of the county's vegetation and wildlife resources will be prepared based on information contained in the area plans and the State's Natural Diversity Data Base. The State's Data Base will be the principal source of candidate and listed rare, endangered, and threatened plant and animal species. Other resources will also be consulted including the State Department of Fish and Game, the federal Fish and Wildlife Service, and the California Native Plant Society. Areas of biological significance, including rare and endangered species habitat, riparian corridors, and wetlands, on the West Slope will be mapped onto a U.S.G.S. quadrangle sheets and characterized in terms of their sensitivity.
- 5.4.3 Mineral Resources. Documentation of the county's rich mineral resources will be drawn primarily from the State Division of Mines and Geology (DMG). Data will be compiled from the Open File Reports on the Mineral Land Classification for the Placerville, Auburn, Folsom, and Camino-Mokelumne Hills quadrangles.
- 5.4.4 Timber Resources. Significant timber resources will be identified and mapped onto U.S.G.S. quadrangle sheets. Data will be assembled from the county, the California Department of Forestry (especially the Forest Resources Assessment Program), the U.S. Forest Service, and the Assessor's Office. If available, the county's Timberland Preservation Zoning maps will also serve as data source. This subtask will focus on the perimeter of the Forest Service land.
- 5.4.5 Water Resources/Water Quality. The El Dorado Irrigation District and other water providers will be contacted to discuss the numerous studies that have been performed over the years. Information regarding hydrology, beneficial uses, and water quality will be obtained from the Basin Plan and coordinated with the Regional Water Quality Control Board. Major waterways, reservoirs, and lakes will be mapped.

- 5.4.6 Air Resources/Air Quality. The County Air Pollution Control Officer, and if necessary, the State Air Resources Board will be contacted to identify baseline emissions inventory for major pollutants in the county. While air quality is currently good, it is recognized that the tremendous expansion of population from the Sacramento region and the relatively affordable housing on the West Slope is attracting significant residential development. Prolonging this trend will exacerbate an already low jobs-housing ratio and contribute to growing congestion and air pollution in the county.
- 5.4.7 Cultural and Paleontological Resources. A thorough literature and data base search will be performed to identify known and potential cultural resources. State and federal lists of historic structures and places, as well as significant historical societies, will also be consulted to compile an inventory of resources.
- 5.4.8 Seismic/Geologic Hazards. The existing Seismic Safety Element will be reviewed and if necessary will be updated to reflect more recent information regarding seismic and geologic hazards. In particular, opportunities to improve the data base on slope stability and landsliding will be explored. The Mineral Land Classification reports by DMG contain generalized geology maps showing geologic units and fault zones and will be used to supplement data in the Seismic Safety Element, along with data in the area plans.
- 5.4.9 Flood Hazards. Problems of flooding and inundation are relatively minor on the West Slope, although localized flooding occurs occasionally. The Federal Emergency Management Agency (FEMA) floodplain and rate maps will be used as the basis for flood hazard delineation, although more credible studies for the Cameron Park area will be used in that general area.
- 5.4.10 Fire Hazards. Critical fire hazard areas were delineated recently by the California Department of Forestry in conjunction with the U.S. Forest Service. The mapping divides the county into moderate, high, and very high fire hazard zones and will be used directly to characterize the county's wildland fire hazards.
- 5.4.11 Noise. Existing noise conditions will be developed from traffic data, from discussions with the Sierra Planning Organization for the county's airports, and from discussions with the County Sheriff's Department. Noise levels at varying distances from the county's major roadways and railroads will be defined. The description of the existing noise environment will also identify various sensitive noise receptors such as single family residential areas, hospitals, convalescent homes, etc.
- 5.4.12 Hazardous Materials and Waste. Data regarding hazardous waste use, transport, and disposal will be drawn from the county's Hazardous Waste Management Plan, prepared pursuant to the Tanner Bill.



## 5.5 Existing Infrastructure

This task includes a countywide assessment of water, sewer, storm drainage, and solid waste facilities. The assessment will take place at both the "macro" level, looking at countywide issues regarding water supply, wastewater and solid waste disposal, and drainage, and a "micro" level, looking at the specific capacities of each system in each planning area. For each planning sub-area except the Tahoe Basin, Psomas will describe the existing water, sewer, and storm drainage systems in each planning area in terms of size and locations, ability to meet existing demand, excess capacity or deficiency, and overall system delivery capability. This information will be collected through a series of telephone interviews with the purveyors of these services. Only those water systems in state jurisdiction (larger than 200 connections), wastewater systems in Regional Board jurisdiction, and significant public drainage systems will be considered. SCA will provide similar discussion and analysis for infrastructure within the Tahoe Basin.

## 5.6 Existing Public Services

This task will result in comprehensive, consistent baseline data on park and recreational facilities, schools, libraries, police, fire, and emergency medical services.

SCA will conduct a study of existing park and recreation sites in El Dorado County, using data collected from the recreation districts which serve the county and interviews with county staff. County staff will arrange a meeting to include representatives of all of these districts. The meeting will focus on recreation needs, problems and opportunities within their districts, the services they provide, their facilities and plans, and their district objectives for the next 20 years. Where data is available, patterns and levels of use at existing facilities will be documented. Existing acreage and siting standards for parks will be reviewed and revisions will be suggested if appropriate. The focus of this task will be on neighborhood and community parks rather than regional or wilderness parks.

The number, type, enrollment, capacity, and location of public and private schools in El Dorado County will be documented principally through existing data and secondarily through contacts with individual school districts. Enrollment and facility data will be analyzed to assess the impacts of growth on future facility needs. A similar process will be undertaken for the library system.

SCA will interview the Sheriff Department and will conduct telephone interviews with fire departments to identify service issues and capabilities, document response time, levels of service, and evaluate emergency preparedness programs. Issues concerning the expansion of facilities, funding, and manpower needs over the course of the planning period will be addressed. The location of existing facilities will be mapped and standards for the development and siting of new facilities will be prepared.



## **5.7 Existing Circulation**

Omni-Means will lead the inventory and analysis of circulation features. The following sub-tasks are proposed.

- 5.7.1 Identify Existing Major Roadways. Omni-Means will review the county's recent Circulation Element to verify the identification of all major roadways in the county and the determination of their functional classification.
- 5.7.2 Determine Roadway Capacities. Roadway capacity evaluation criteria from the Circulation Element will be reviewed to ensure that they provide the basis for evaluating the operating level of service of all major roadways by functional classification.
- 5.7.3 Collect Existing Traffic Counts. Average daily traffic counts for the major roadways, taken from existing information, such as counts conducted by CALTRANS, El Dorado county DOT and/or documented in recent studies will be reviewed. Where gaps in the information exist, Omni-Means can conduct 24 hour machine traffic counts. Traffic counts are not included in the budget for the project.
- 5.7.4 Review Traffic Model. The traffic model developed during the preparation of the recent Circulation Element will be reviewed for accuracy. Comments will be provided to the county staff. Modification of the model is not included in the budget for the project.
- 5.7.5 Determine Existing Level of Service. Based on the daily roadway capacities identified in Task 5.7.2, and the traffic counts obtained in Task 5.7.3, existing levels of service on all major roadways in El Dorado County will be reviewed.
- 5.7.6 Identify Traffic Accident History. Omni-Means will research SWITRS reports for the last three years and identify accident history in the county, including primary factors and identification of high accident locations.
- 5.7.7 Identify Local and Regional Transportation Improvement Plans. State, county and local transportation improvement programs will be reviewed.
- 5.7.8 Other Transportation Modes. An inventory of other transportation modes and elements will be prepared and discussed, including but not necessarily limited to inter-city, intra-city, intra-county and interstate bus service, transit service, air transportation, taxi service, ridesharing programs and rail service.

## **5.8 Review and Update Housing Element Data**

SCA will review and update the housing element data with assistance from county staff. The county's most recent housing element will be reviewed and updated as required for approval by the State Department of Housing and Community Development. Data on

building permit trends, housing costs and affordability, the need for housing improvement, constraints to housing development, county demographics, characteristics of the existing housing stock, and groups with special housing needs will be updated for the element. The county should be prepared to document the progress that has been made toward achieving the housing production and assistance targets set in the previous housing element.

## **5.9 Identify Implementation Resources**

SCA and EPS will examine the fiscal and regulatory tools currently available to carry out possible planning and capital improvement programs. Aspects to be addressed include: (1) existing and potential sources for publicly financed or assisted improvements; (2) existing and potential regulatory powers and methods; (3) institutional arrangements such as intergovernmental arrangements, public-private joint ventures, and non-profit operations; and (4) the potential use of redevelopment powers.

EPS will evaluate the various sources of cash used to pay for improvements, either directly, through lease payments, or through debt service. These sources include state and federal grants, property tax increments (in redevelopment areas), utility rate revenues, connection fees, special assessments, impact fees, dedications and exactions (such as development agreements), dedicated subventions (such as highway user taxes), special taxes (such as Mello-Roos), and general fund transfers.

EPS will also review capital financing mechanisms, including the "pay-as-you-go" approach, special assessment bonds, tax increment bonds, revenue bonds, certificates of participation, special tax bonds, and public-private partnerships. The evaluation of these techniques will include a review of legal and political feasibility, financial limits and opportunities, and capability to finance improvements.

## **5.10 Prepare Existing Conditions Report (General Plan Technical Appendix)**

The findings of the baseline inventory will be compiled in an "existing conditions" report. The report will include text, tables, and graphics and will be organized in chapters which directly correspond to General Plan elements. The report will be organized so that it can later be incorporated as the technical appendix or background document for the General Plan. A presentation to the Policy Steering Committee would be made upon completion of this task.

### **PRODUCTS:**

1. Map indicating new planning area boundaries
2. Existing Conditions Report, including market overview; projections of population, housing, and employment by sub-area; land use, subdivision, and development trend analysis; descriptive overview of community character and cultural resources; analysis

of natural resources and hazards; analysis of infrastructure, circulation, and public services; and implementation resources<sup>3</sup>

#### MEETINGS:

1. Extensive number of meetings anticipated for collection and verification of data and discussion of issues (Number cannot be specified at this time)
2. Joint Planning Commission/Board of Supervisors Workshop

### **TASK 6.0: DEVELOP AND TEST ALTERNATIVES**

#### **Objectives**

- To document the goals and objectives for the county as a whole and for individual communities within the county
- To generate alternative courses of action for accomplishing these objectives
- To illustrate alternative scenarios for accommodating population and employment growth
- To test the implications of these courses of action and scenarios on the natural and man-made environments and on the county's fiscal position

#### **6.1 Develop Goal and Objective Statements**

Based on the consultant team's data inventory, initial meetings with the Policy Advisory Committee, and the outcome of the "Round 1" workshops, SCA will formulate preliminary goal and objective statements. These will include statements which apply to the county as a whole, and statements which reflect the aspirations of individual communities. The latter statements will be developed directly with the community during the Round 1 workshops. Goal and objective statements will cover community development, housing, economic development, economic growth, transportation, public services, natural resources, hazards, community design, and any other topic the community feels is appropriate.

A written statement of goals and objectives will be presented to the Policy Advisory Committee for discussion. The statement will also be circulated to Planning Commissioners, county Supervisors, members of the Technical Advisory Committee, and interested residents for review and comment. The statement will be revised to incorporate comments.

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<sup>3</sup> Housing Element data can also be included in this report if data can be provided by county staff.



## 6.2 Formulate Land Use Alternatives

Based on control totals for population and employment established in Task 5 and basic assumptions about future development trends in the county, two alternative concept plans will be developed. Although it is premature to specify the nature of each concept now, the main difference between the two will be:

- the balance between "rural" and "urban" growth;
- the distribution of growth within the county; and
- the degree to which urban services (including roads) dictate the direction of growth versus growth dictating where improvements need to be made.

Because of the size of the county, the alternatives will be graphically expressed at a conceptual level only. The implications of different policies regarding rural residential growth, level of service, creation of new service districts, economic development, and other variables affecting the future land use pattern will be quantified for further analysis.

EPS and SCA will direct county staff in the preparation of population, housing, and employment estimates by traffic zone for each of the two alternatives. These estimates will be summarized to the planning area level for easy comparison.

## 6.3 Test Alternatives

6.3.1 General Assessment. Each alternative will be assessed for its short- and long-term impacts on the community. The assessment will address the acceptability of each alternative to different groups, including community groups, development groups, and environmental groups. The impacts of each alternative on the real estate market, natural resources, local economic conditions, social needs, community character, and quality of life will be considered.

6.3.2 Test Circulation Impacts. The transportation related consequences of the alternative scenarios will be identified and evaluated. The primary analysis tool for this Task will be the El Dorado County Traffic Model, which will be updated to reflect two alternative draft General Plans. It is imperative that the western slope traffic model be made available, in its entirety, to allow completion of this phase.

- (a) Update Traffic Model. The El Dorado County West Slope traffic model will be updated and recalibrated based on the alternatives. This will include an update of the geography (traffic analysis zones) of the model to conform with General Plan geography, a re-configuration of the trip generation equations to conform to the new geography, and a recalibration of the trip distribution module based on the new geography.
- (b) Prepare Future Traffic Projections. Using the updated El Dorado County model for the western slope, future traffic projections will be prepared based on the General Plan alternative land uses and geography.

- (c) Analyze Projected Traffic Conditions and Identify Impacts. Future traffic projections will be evaluated to determine the projected level of service on major roadways in the county. The level of service, evaluated against the roadway capacities determined during preparation of the base conditions report, will be used to identify all impacted major roadways in El Dorado county.
- (d) Determine Future Roadway Needs. Future roadway improvements will be identified to ensure that all major roadways in El Dorado County will operate at an acceptable level of service based on the future traffic projections. Order of magnitude costs for these improvements for both scenarios will be identified.

6.3.3 Utility Assessment. Each alternative will have different implications for utility systems. Psomas will determine the impact of each alternative on sewer, water, storm drainage, and solid waste disposal. The relative cost and ease of expanding these systems to accommodate new development will be considered.

6.3.4 Fiscal Impact Assessment. Using specially designed versions of EPS' computer-based fiscal and financing models, a detailed fiscal analysis of the land use alternatives will be conducted. The fiscal analysis will include a forecast of on-going county revenues and costs through the year 2010.

A fiscal model that predicts major ongoing revenue sources, including property tax, sales tax, and state subventions, and compares these revenues to costs, will be developed. Ongoing service costs will be derived from existing public agency budgets, interviews with these agencies, and per capita estimates. The results of the model will assist in development of policies for mitigating potential negative fiscal impacts of the land use alternatives.

## **6.4 Public Review and Response**

A memorandum summarizing the key policy choices (expressed as two alternatives) and the potential impact of these choices will be prepared. The memo will be summarized in a press release.

Over the course of Task 6, a series of community workshops will be held to discuss alternatives for the county as a whole and alternatives for individual communities (see Task 2). In addition, a working session will be planned with the policy advisory committee to develop and to appraise the alternatives. Finally, one workshop each will be held with the Planning Commission and Board of Supervisors to discuss policy choices and the findings of the alternatives testing. Each group will be asked to identify preferred policies during the meeting.

## **6.5 Evaluation of Specific Development Proposals (Optional Revision)**

Numerous General Plan amendments, specific plan and major development project applications will be received by the county during the interim period while the General Plan is being prepared. SCA will provide an analysis of each of these project applications which will discuss: 1) their consistency with the conceptual land use alternatives, 2) its implications on the demand for public services, and 3) its potential impacts on the transportation system, wildlife habitat, agricultural production, and natural resource conservation. These evaluations will be provided to county staff for their use in processing the applications according to county policy and procedure.

### **PRODUCTS:**

1. Written statement of goals and objectives (draft and final)
2. Memorandum summarizing policy choices, and circulation and utility implications of each
3. Memorandum containing evaluation of specific development proposal applications. (Optional Revision)

### **MEETINGS:**

1. Two Community workshops associated with this task are budgeted in Task 2 ("Round 2" workshops)
2. Two Policy Advisory Committee workshops (budgeted in Task 2)
3. Joint Workshop with Planning Commission/Board of Supervisors

## **TASK 7.0: PREPARE DRAFT GENERAL PLAN**

### **Objective:**

- To develop and prepare a draft of the General Plan for review by the county and the public at large

### **7.1 Determine Plan Format**

A final determination will be made of the scope and organization of the Plan, the means of presenting mapped data at the countywide and subarea level, and the level of background and technical data to be provided.

SCA's goal is to prepare a "user-friendly" document. To this end, it is useful to prepare the Plan primarily as a policy report, with the lengthy and detailed baseline reports contained in a technical appendix. The baseline reports also function as "existing conditions" data for the General Plan EIR.



As now envisioned, each Plan element (or other major division) would contain an introduction; findings (issues raised by the community, a discussion of their implications, and the rationale for the policies contained in the element); goals, objectives, and policies; maps, and implementing actions. The implementing actions would identify the strategies for carrying out plan policies and appropriate administrative, procedural, and financial mechanisms that can be used.

## **7.2 Prepare Future Land Use Maps\***

SCA will work jointly with the county to develop appropriate designations for future land use. The designations should be compatible with both the existing land use categories conducted in Task 5 and with the proposed zoning categories to be developed in Task 11. The number of designations should be fewer than those used in the zoning ordinance.

Using the interim USGS base maps, SCA will develop 1"=2000' future land use plans for each planning area. These plans will be internally consistent, will use a uniform legend and hierarchy of land use designations, and will be based on a clearly stated set of assumptions regarding the allocation of growth between planning areas, and the character and density of future development countywide and in each planning area. Where urban densities already exist, more detailed maps may be required to depict future land use. The extent of areas requiring more detailed mapping will be determined during Task 1.

These maps will not be parcel specific. However, they will be specific enough so that they provide the foundation for countywide zoning maps to be prepared at a later date.

The maps are to be based on the policy choices made in Task 6, as well as the synthesis of baseline data conducted in Task 5. SCA, EPS, and the county will work jointly to quantify the plans at the traffic analysis zone level, specifying "buildout" population figures for each and projecting year 2010 housing and employment based on the amount of development likely to occur in each zone under the proposed land use policies.

## **7.3 Prepare Administrative Draft Plan Elements**

7.3.1 Natural Resources and Hazard Issues. SCA and ERCE will update the Conservation, Open Space, Safety, and Noise Elements of the General Plan. The update will include appropriate recommendations for conserving the county's natural resources, for protecting existing and future residents from natural and manmade hazards, and for conserving open space for the managed production of resources, protection of public safety, protection of resources, and provision of recreation.

Attention will be given to policies dealing with agriculture, timber, and mining, and to the issue of water supply, quality, and conservation. The plan will also include recommendations regarding construction in areas of steep or unstable slope, high

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~~\* The approach recommended here is subject to change following the outcome of Task 1.4.~~

wildfire risk, or archaeological or historical significance. Policies dealing with the management and utilization of vegetation and wildlife will also be considered. Special attention will be given to resolving conflicts posed by competing uses of resource areas, especially tourism, resource extraction, and rural residential development.

- 7.3.2 Community Development Issues. The Land Use Element of the General Plan will incorporate the policy recommendations of Task 6. It will incorporate both broad policies for the use of land and character of development in the county and more specific policies dealing with the individual planning area.

Policies should address suitable locations for different land use designations. Conversely, examples of the type of development that is suitable within each designation will also be stated. Policies will emphasize the balance between urban and rural development, the emphasis on residential, local-serving, and basic development, and the character envisioned for the county as a whole and for individual planning areas. The policies will also address such issues as development in areas lacking public services, development of free-standing subdivisions in rural areas, and conflicts between urban and non-urban land uses.

As part of this task, SCA will work with the county to prepare an updated housing element. The previous element should be updated with the baseline data collected in Task 5 and should be modified to reflect new policies for land use and public

- 7.3.3 Circulation Issues. The General Plan will include a program for future road improvements. It will identify the functional classification of arterial roads, both existing and future, and will include a map showing the location of these roads. The program will be based on roadway needs as determined by application of the West Slope Traffic Model. Land use statistics developed in Task 7.2 are to be used as inputs to this model. Based on the land use plan, forecasts of future travel demand will be generated and transportation improvements will be identified.

The consultants will update the new Circulation Element based on the findings of this analysis. The Element will also include policies and programs for improving mass transit service, rail service, airports, bicycle and pedestrian travel, and for protecting scenic highways.

- 7.3.4 Community Service Issues. The General Plan will include a Community Services Element that will, among other things, assess public utility and infrastructure needs. The plan will include preliminary plans for upgrading existing utilities and for constructing new utility systems in areas where so warranted by planned development. The plans will address the utility elements needed but not the specific line sizes. Development and design criteria will be reviewed with county and special district staffs, and revised as needed.



Preliminary utility plans will be tabulated by growth area and mapped to indicate proposed new water sources, storage facilities, and distribution lines; new sewer collection and treatment facilities; new storm drainage facilities; and major flood control and landfill improvements. These facilities will be categorized so that financing policies and analyses can be conducted for each.

The Community Services Element will also contain policies dealing with the location, distribution, and extent of future fire protection services, law enforcement services, emergency medical services, libraries, educational services, and community or neighborhood parks.

7.3.5 Recreational Issues. SCA will update the recreational element of the general plan. The update will include appropriate recommendations for coordinating the vast recreational resources of the county under one overall management strategy, protecting access to existing recreational resources, and acquiring and developing new parks and recreational facilities.

Policies will address the locational needs for new park facilities based on existing and future demands, appropriate standards and design guidelines for new park facilities, recreational programs which cater to the special needs of El Dorado County residents, and the use of development fees, in-lieu dedication and other revenue sources for acquiring and developing parks and recreation services. Policies dealing with the coordination and management of the recreational resources within state park, Bureau of Land Management, or U.S. Forest Service jurisdiction will also be stated. Special consideration will be given to resolving conflicts between the recreational use of natural resources and future development or managed production of these resources. (Optional Revision)

7.3.6 Capital Improvement Financing. It will be necessary to develop General Plan policies to guide the financing of public improvements. Policies will address such subjects as:

- Allocation of cost between new development and existing residents;
- Identification of preferred revenue sources and techniques;
- Linking of techniques to specific types of improvements;
- Limitations on the use of general purpose revenue;
- Standards for acceptable levels of burden among various benefit groups; and
- Phasing of specific improvements in relation to development activity.

The Plan will also equate future infrastructure requirements with the revenue sources and financing techniques. Policies will be structured to address major improvements serving the entire county, "backbone" improvements that serve specific areas, and project-specific improvements. Specific implementation measures associated with each type of policy will also be identified. Policies should provide criteria for selecting the most appropriate financing given the type of improvement, local opportunities and constraints, and general economic conditions.



The draft policies will establish time frames for major countywide and backbone improvements. An essential requirement will be to ensure that public services are available for both developed areas and areas where development is proposed in the General Plan. The financing recommendations should meet the service standards developed through the planning process, and should ensure that adequate levels of service are maintained in El Dorado County.

Infrastructure costs will be allocated to each planning area depending on the type of improvement and current and planned conditions. These costs will be compared with revenue capacity using EPS' Capital Improvements Financing Model. The model will permit iterative analysis of various mixes of facilities, revenue assumptions, and financing strategies.

7.3.7 Assess Fiscal and Financial Impacts of the Plan. Interviews will be conducted with representatives of the County Administrator and budget data will be collected and coded into EPS' Fiscal Impact Model. The resultant budget models will be used to conduct the cost and revenue projections in Task 7.3.4. Emphasis will be on the county budget. On-going costs and revenues will be distinguished by fund, to account for revenues which are dedicated for specific purposes.

The budget analysis will focus attention on those departments that will be most affected by the General Plan. Interviews will be conducted with representatives of these departments to determine their estimates of costs for providing services under the proposed service standards. This effort will result in realistic "incremental" cost estimates.

Costs and revenues associated with the plan will be evaluated. Initially, the ongoing public service costs over time relative to the phasing of the General Plan land use changes will be projected. Factors affecting costs after the buildout period, such as depreciation of public and private facilities, will be considered.

Subsequently, revenues will be projected based on projected development trends. The EPS' Fiscal Impact Model simulates the revenue stream from a number of sources, including property taxes, sales taxes, fees, and other sources.

Cost and revenue projections will be applied to the budget model to produce a multi-phase cash flow analysis of the costs and revenues of future development in El Dorado County. Costs in excess of revenues within specific budgets will be identified and discussed. Impacts occurring after the buildout period will be addressed and the conclusions of the analysis will be summarized for inclusion in the plan and DEIR.

The analysis will also consider the financial feasibility of the infrastructure improvements required to serve the proposed land use pattern. Infrastructure cost information will be derived from Psomas and the county. The analysis will reflect financing mechanisms that are consistent with individual policies and practices of the respective agencies, as well as the preferred financing policies of the county. The

analysis will provide a good indication of the financial soundness of the future land use plan and will include a detailed evaluation of how the burden will be distributed -in other words, who pays.

#### **7.4 Prepare Public Review Draft Plan**

The Administrative Draft will be circulated to county staff for their review. After approximately two weeks, SCA will meet with county staff to receive a single marked-up copy of the report documenting staff's comments. These comments would then be incorporated in a public review draft, suitable for broad distribution.

An Executive Summary of the Plan, suitable for use as a press release, will be produced as part of this task.

##### **PRODUCTS:**

1. Administrative Draft of General Plan
2. Public Review Draft of General Plan (100 copies)
3. Executive Summary of General Plan (100 copies)

##### **MEETINGS:**

1. Meet with county Staff to Review Administrative Draft
2. Meet with Policy Advisory Committee (1 of 8 meetings called for in Task 2.0)
3. Joint Planning Commission/Board of Supervisors Workshop

#### **TASK 8.0: PREPARE DRAFT EIR**

##### **Objectives:**

- To document the environmental impacts of the General Plan in a way which will enable the County to recognize the significant impacts of its policies and programs
- To ensure that the plan is legally adequate

All sections of the EIR will be prepared according to applicable CEQA Guidelines, particularly Article 9 (Contents of Environmental Impact Reports ) and the following sections of Article 10 and 11 of the Guidelines: Sections 15146 (Degree of Specificity), 15150 (Incorporation by Reference), 15166 (EIR as Part of A General Plan), and 15168 (Program EIR). The outline for the EIR will be developed in close consultation with the project team and County staff.

The focus of the EIR will be on broad countywide implications of the development and conservation policies formulated as part of the Plan. The effects of area plans, depending



on how their relationship to the countywide land use plan map is resolved, will receive lesser attention.

Given the level of detail and emphasis of a General Plan, the appropriate and desirable level of environmental analysis can be achieved through the preparation of a Program EIR, compared to a Project-specific one. The advantages of a Program EIR lie in its ability to:

- identify long range, areawide cumulative effects;
- identify significance thresholds for individual project review;
- provide standardized mitigation policies and measures;
- provide a central source of information for initial studies, negative declarations, and other EIRs; and
- serve as an overall reference document for public agencies and the general public.

Potential environmental effects will be shown in a matrix to be included in the summary of the EIR.

## **8.1 Administrative Draft EIR**

ERCE will prepare an Administrative Draft EIR (ADEIR) for review by the County prior to release of a document for public review and comment. The ADEIR provides staff with an opportunity to review the accuracy of the technical data presented, to comment on the severity and magnitude of the projected impacts, and to accept proposed, or suggest additional, mitigation measures. The existing and future environmental setting will be prepared using the Baseline Studies developed during Task 5. The budget for this task has been adjusted to reflect the completion of most of the work in Task 5.

The impact assessment will analyze the effects of the proposed policies on the physical environment of the County. The analysis will concentrate on the west slope, and incorporate previous environmental analyses by the Tahoe Regional Planning Agency for that portion of the County within the Lake Tahoe Basin. Specific ERCE's responsibilities include the assessment of issues related to natural resources and hazards. Other technical issues will be addressed by other team members for use by ERCE in assembling the ADEIR (i.e., SCA will provide sections on land use, public service, housing, and recreation impacts; Omni-Means, circulation; ~~Psemas~~ SCA, infrastructure; EPS, demographics and fiscal conditions). Key impacts and mitigation measures anticipated for each of these issue areas are noted below.

8.1.1 Land Use. The emphasis of this effort will be to identify the compatibility of the projected growth and densities on the surrounding land uses. If existing land use data are available, it would be valuable to document the proposed changes in the land use pattern. The ability of the natural environment to accommodate and sustain the proposed growth will be addressed in the specific discussion of natural resources. Possible mitigation measures include refinements to the land use designation or to the intensity proposed.



- 8.1.2 Socioeconomics. The assessment of socioeconomic changes will document shifts in the population distribution, intensity, and economic base of the County. A key indicator that will be used to describe such shifts will be the jobs/housing ratio by planning area and countywide. In addition, the proposed policies will be reviewed for their effect on the construction and affordability of new housing. Possible mitigation measures may include the redesignation of land uses within some areas to improve the ratio.
- 8.1.3 Circulation. The assessment of circulation effects will rely largely on the traffic study recently completed by DKS Associates, as updated by Omni-Means. Based on the updated information, the County's model will be used, as appropriate, to identify any additional road improvements.
- 8.1.4 Natural Resources and Hazards. The analysis of the Plan for these issues will focus on the potential loss of sensitive natural resources and on the potential for a significant increase in exposure of the public to health risks.
- (a) Agricultural Resources/Soils. Areas designated for urban uses or rural residential type uses will be compared to the lands with prime agricultural soils. Potential conflicts will be identified and tabulated. Mitigation measures might include various agricultural preservation techniques, buffers between agricultural and non-agricultural lands, open space easements, and changes in the land use designation.
  - (b) Biological Resources. Areas designated for urban activities will be compared to lands identified with sensitive vegetation and wildlife species or with habitat values. Potential conflicts will be identified along with possible mitigation measures to protect these resources.
  - (c) Mineral Resources. Areas designated for urban activities will be compared to areas designated as having regionally significant mineral deposits. Mitigation measures including open space easements, overlay zones, and others suggested by the Surface Mining and Reclamation Act will be considered for their applicability in El Dorado County.
  - (d) Timber Resources. Productive timber harvest areas will be identified and policies proposed for their protection will be reviewed. Buffers between timber and non-timber lands will be considered.
  - (e) Water Resources/Water Quality. Potential adverse effects from urban, economic, and recreational activities permitted by the Plan on the beneficial uses of the County's water resources will be documented. A key concern would be the intensity of development permitted in identified groundwater recharge areas, which could adversely affect the ability of the aquifers to replenish. As appropriate, additional policies may be suggested to minimize the amount of impervious surface of new developments, to provide setbacks

along major streams and other significant water bodies, to minimize erosion and sedimentation, and to limit the placement of landfills and septic systems.

- (f) Air Resources/Air Quality. ERCE will quantify the amount of future air pollutants generated by the projected land uses and traffic levels. The analysis will be performed using the Urbemis No. 2 emissions model, developed by the California Air Resources Board. Proposed mitigation measures will be linked closely to the proposed circulation improvements and suggestions for a Transportation Systems Management program. As appropriate, stationary sources and industrial tradeoffs (offset credits) will also be considered.
- (g) Cultural and Paleontological Resources. Urban development activities and intensities will be reviewed for the effects in areas considered to have a high cultural resource sensitivity, that is, areas most likely to contain unearthed prehistoric and historic artifacts. Recommendations will be made for future studies and standard development conditions.
- (h) Seismic/Geologic Hazards. Development proposals and policies will be reviewed to assure that they afford adequate protection from hazardous seismic and geologic zones. Key concerns relate to the level of development expected in areas of steep slopes, shallow groundwater, highly erodible soils, and known or potentially active faults. Possible mitigation measures include refinements to the grading ordinance, erosion control plans and measures, County-designated Special Study Zones, and overlay zones.
- (i) Flood Hazards. Proposed development within FEMA 100-year flood plains and dam inundation areas will be identified as potential threats to public safety. In addition, the Plan policies will be reviewed for the possibility of directly or indirectly altering surface watersheds or drainage patterns.
- (j) Noise. The County's standards for noise/land use compatibility will be used to evaluate potential adverse noise effects. As the primary source of noise is expected to be vehicular traffic, ERCE will use data generated by Omni-Means to project future noise levels in areas adjacent to major roadways. The noise levels will then be compared to the proposed land uses. Other noise sources, including airports, railroads, lumber mills, and stationary sources, will also be identified and described in terms of their noise impacts on surrounding uses. Mitigation measures will focus on land use compatibility with noise sources, with an emphasis on sensitive receptors and on methods to attenuate noise levels. A countywide noise ordinance will be proposed as the appropriate mechanism for dealing with noise from off-road vehicles, snowmobiles, specialized equipment, etc.
- (k) Hazardous Materials and Waste. Future growth trends and development will be evaluated in light of the County's Hazardous Waste Management Plan, prepared pursuant to the Tanner Bill. Potential risks from transport of



hazardous materials will also be identified. Proposed policies regarding land use and hazardous materials will be evaluated for their adequacy in minimizing public safety threats.

- 8.1.5 Infrastructure. The assessment of infrastructure will examine the demand for various utilities imposed by the projected population and employment growth. Infrastructure systems to be addressed in this discussion include water, sewer, power, and solid waste disposal. Key mitigation measures would include policies and/or procedures ensuring the availability and adequacy of these facilities prior to issuance of a development permit.
- 8.1.6 Public Services. This assessment would parallel that performed for infrastructure systems, in that the issues revolve around the availability and adequacy of public services to serve the needs of future growth. Public services that will be addressed include fire protection, law enforcement, parks and recreation, library, and schools.
- 8.1.7 Fiscal Conditions. The effect of the proposed policies and the projected growth on the County's ability to generate revenues and provide necessary services will be evaluated based on materials provided by Economic and Planning Systems. Potential mitigation measures which could be incorporated as implementation actions of the Plan include the use of assessment districts, Mello-Roos districts, redevelopment, exactions and dedications, and impact fees.
- 8.1.8 Intergovernmental Coordination. Given the number of other public agencies with some jurisdiction over land use activities and management within El Dorado County, there exists considerable potential for conflict among the various governmental entities. The intent of this assessment is to review the compatibility of the proposed policies with those of the surrounding communities and with other agencies within El Dorado County. Possible mitigation measures to enhance intergovernmental coordination and cooperation include joint studies within common areas of interest and more formalized procedures for referrals.
- 8.1.9 Other Required CEQA Sections. The preceding subtasks will be formulated to fully and adequately address CEQA's requirements for an existing conditions, impact assessment, and mitigation measure discussion. The ADEIR will also contain other sections mandated by CEQA. These sections include a summary, a project description, alternatives, and topics covered by Section 15126 of CEQA.

The project description will include the goals and objectives of the Plan, as well as some of the key policies. The policy diagrams will also be included to demonstrate how the policies will be applied geographically. The Alternative chapter will include a No Project option, plus the alternatives that are developed and tested as part of Task 6.

## **8.2 Draft Environmental Impact Report**



Based on comments received from the County staff, ERCE will assume the lead responsibility for preparing a Draft Environmental Impact Report (DEIR) for public review and comment. Both a camera-ready version as well as printed copies will be delivered to the County for distribution to the responsible agencies and interested parties.

**PRODUCTS:**

1. Draft Environmental Impact Report (100 copies)

**MEETINGS:**

2. Three coordination meetings to discuss status and content of DEIR

**TASK 9.0: PLAN ADOPTION**

**Objectives:**

- To brief the decision-makers on the contents of the Draft Plan and EIR
- To attend public hearings to receive oral testimony and adopt the document
- To produce a final adopted General Plan/EIR

**9.1 Public Review of Draft General Plan and EIR**

The Draft General Plan and EIR would undergo a minimum 45-day period for public review and comment after being released. During this time, it is envisioned that SCA will conduct a workshop with the Planning Commission and Board of Supervisors to inform them of the contents of the document. Copies of the plan should be made available in all county public libraries. The County's General Plan Project Manager should be the contact person for comments on the plan.

It is at this point in the work program when the "Round 3" public workshops should be scheduled (see Task 2). This review period would also be an opportune time to explore other means of community outreach, including a plan video, newspaper supplement, or mass mailing.

**9.2 Attend Planning Commission Public Hearings**

Members of the consultant team will attend up to two (2) public hearings before the Planning Commission. The purpose of the hearings would be to receive oral and written testimony on the Plan contents and policies, and to help the Commission decide what revisions should be made to the document before recommending it to the Board of Supervisors for adoption.

Prior to the final adoption hearing, SCA will prepare an Addendum which identifies all proposed changes to the Draft Plan. The Addendum would be adopted along with the Draft Plan prior to its forwarding to the Board of Supervisors. The Addendum would also serve to apprise the Board of the text and map changes to be incorporated in the Final Plan.

### **9.3 Prepare Final EIR (Costs to be negotiated)**

The intent of the Final Environmental Impact Report (FEIR) is to respond to substantive comments and questions regarding the adequacy of the DEIR and to provide the Planning Commission and the Board of Supervisors with full disclosure regarding the potential environmental implications of the General Plan.

9.3.1 Administrative FEIR. The County will deliver a complete set of written comments submitted on the DEIR along with substantive oral testimony made at the public hearings (Tasks 9.2). The comments will be reviewed and distributed to the appropriate member of the consultant team for an initial response. The responses, including recommended changes to the DEIR, will be submitted to County staff for review.

9.3.2 FEIR. Revisions will be incorporated as appropriate and a FEIR will be produced for certification. The FEIR will consist of the comments received on the DEIR and the responses to these comments. This task does not envision reprinting the DEIR, as amended; although this can be done if desired by the County.

### **9.4 Attend Board of Supervisors Hearings**

SCA will attend up to two (2) hearings with the Board of Supervisors to review the plan and respond to comments and questions. The purpose of the hearings is to take oral testimony on the documents and to adopt the General Plan.

### **9.5 Prepare Final Plan**

SCA will make all approved changes to the Draft Plan and submit the required number of copies to the County.

#### **PRODUCTS:**

1. Addendum to Draft Plan, summarizing changes adopted by the Planning Commission
2. Administrative FEIR
3. FEIR (100 copies)
4. Final General Plan, incorporating all changes made upon adoption by the Board of Supervisor (100 copies and one set of IBM(PC)-compatible diskettes)

#### **MEETINGS:**

1. Community workshops and Policy Advisory Committee Meetings, as budgeted in Task 2
2. Two Planning Commission hearings
3. Two Board Of Supervisors hearings

## **TASK 10.0: PREPARE DEVELOPMENT MONITORING SYSTEM**

### **Objectives:**

- To establish a system to monitor the location of proposed and approved growth
- To compare the location of growth with that anticipated by the General Plan
- To develop a process for changing the direction of growth or modifying the General Plan in order to keep development patterns consistent with the Plan

### **10.1 Develop Goals and Objectives**

SCA, with assistance from EPS and Psemas, will develop a set of goals and objectives for the Development Monitoring System. This effort will be in close consultation with those County departments which are potential users of the system.

The purpose of the Development Monitoring System is to determine if development is following patterns predicted by the General Plan and, if not, to take the necessary action to redirect development or to amend the Plan. In other words, the Development Monitoring System provides a feedback loop by which the General Plan becomes a true management tool instead of a static blueprint for the future.

Ideally, development will flow in the directions indicated in the General Plan. However, no plan can completely predict the future and, even if it could, the Plan should provide for enough flexibility to account for market shifts and personal preferences. However, to the extent that development patterns substantially deviate from those shown in the Plan, infrastructure planning will become more difficult and infrastructure development will become more inefficient and costly. Therefore, a balance is needed between flexibility and efficiency. The first step in achieving this balance is to know where the development is occurring.

### **10.2 Develop the Initial Version of the System**

The exact nature of the monitoring system will evolve from the County's land-use data base system. If the data base system can be installed on a computer during the course of this project, the monitoring system will directly tie into this computerized system. Development applications, such as tentative map applications, will be fed into the system to determine what percentage of the growth for a particular TAZ will be reached if the application is approved. When proposed growth reaches 80%, 90%, and 100% of what the General Plan



has allocated, a special report will be generated for use by the staff, Planning Commission, and Board of Supervisors. Copies also will go to the special districts which provide services.

In addition to tracking development proposals, the system will track approved projects and built projects. The latter will be accomplished by feeding building permit data into the system. This three-tier system will provide an early warning so actions can be taken to re-channel growth or amend the General Plan (with subsequent amendments to the Capital Improvement Plan and utility master plans), a record of development approvals that can be incorporated into the infrastructure planning, and a record of built projects. The tracking of built projects is especially useful for identifying those projects which have been approved, but do not appear to be moving forward.

The system also will contain other types of "trigger" points which will indicate when a General Plan revision may be required. The goal will be to have a "real time" Plan with annual reviews (as required by state law) and major policy reviews every five years.

Another aspect of the monitoring system will be to monitor conditions placed on use permit or subdivision map approvals and mitigation measures imposed as part of the CEQA process. For example, the performance standards for storm runoff should be monitored to ensure that County objectives are being met.

The consulting team will work closely with the group or person developing the GIS. A structure will be set up so that, throughout the project, all work on data gathering, data organization, and mapping will be in a form that will facilitate integration into the monitoring system and GIS.

The initial system produced under this task will be reviewed with County staff to determine its effectiveness and ease of use. ~~If the equipment and software is available, a test simulation will be run.~~

### **10.3 Final System**

The consulting team will develop the system design for the monitoring system. The system design will consist of an analysis of equipment, software, staffing, and procedures required for an effective monitoring system. The system design also will include the specification for converting the data collected and organized during the project into a user-friendly monitoring system. Equipment and software are not included. The monitoring system will go on a special software package or on the County's data management or GIS system, assuming that the computer software system selected is capable of performing development monitoring functions. The consulting team will work with the County in selecting the software system.

The budget for this task does not necessarily include the final monitoring system because the efforts necessary to make the County land use data base system accessible and usable by County staff may require additional system design and programming efforts. The scope of these efforts can best be determined when: 1) the land use data base is complete, 2) the

County has selected and begun to implement its data management or GIS system, and 3) the capabilities of County staff to maintain and operate such a system can be more accurately defined based on their experience with the County's GIS system.

A memorandum will be submitted at the conclusion of Task 6 addressing the above issues and providing the estimated additional costs, if any, of completely integrating the development monitoring system into the data management or GIS system.

~~SCA, with assistance from EPS and Psomas, will prepare the final Development Monitoring System. This will consist of a computer program, a manual for running and interpreting the system, and an outline of options for the County to take when the system discloses unanticipated development patterns.~~

#### PRODUCTS:

- ~~1. -- A computer program containing the Development Monitoring System~~
- ~~2. -- A manual for running and interpreting the system~~
- ~~3. -- A policy outline for potential actions (100 copies)~~
1. A memorandum describing monitoring goals and objectives
2. A memorandum describing the initial system
3. A memorandum on GIS/monitoring integration
4. A final system design

#### MEETINGS:

1. Individual interviews with potential users
2. Meeting to review initial system
3. Meeting to explain final system

### **TASK 11.0 PREPARE ZONING ORDINANCE**

#### **Objectives:**

- To develop a Zoning Ordinance which is consistent with and implements the new General Plan
- To develop an Ordinance which is easy to use for both staff and the public
- To develop an Ordinance which is legally defensible.

#### **11.1 Develop Approach and Framework**

The approach in preparing the Zoning Ordinance will be to integrate planning (including design) and legal issues into the ordinance at all phases of its development. Documents will not be drafted and then reviewed by a person with a legal background; instead they will



be drafted by someone who incorporates both planning and law into the effort. This approach produces an Ordinance which effectively implements the General Plan, is easy to use, and is legally defensible.

The firm's familiarity with the current state of zoning and other regulatory mechanisms will enable the team to spend its time focusing on issues specific to El Dorado County's needs. Our goal is to handle about 80% of the Zoning Ordinance in about 40% of the time allocated to this task. This includes providing a more accessible structure, developing better definitions, demystifying language, and integrating graphics into the regulations. The other 60% of the time will be devoted to issues of specific concern such as ridgeline development and protection of existing vegetation. The emphasis will be on problem solving.

A clear structure for the Zoning Ordinance will be developed. The regulations will fit together such that the process of development review and approval is consistent, effective, and efficient. These regulations will be organized so that the path through the Ordinance is made clear to the inexperienced user.

Based on the work done in Task 1.0, Reconnaissance, SCA will prepare a preliminary approach memorandum containing the objectives of the new Zoning Ordinance. The memorandum will present a description of alternatives that can be used for reaching these objectives. The memorandum will then outline a recommended approach and the framework to be followed. This memorandum will address issues such as:

- proposed zoning districts;
- special area regulations;
- definitions;
- performance standards (where appropriate);
- design criteria;
- development standards;
- environmental regulations; and
- procedural and administrative provisions.

The preliminary approach memorandum will include a table of contents; a discussion of the overall framework of the Ordinance; and a general description of proposed zones, regulations, and procedures. The memorandum also will include a discussion of the potential approaches for phasing in the new ordinance and maps. SCA will then discuss this memorandum with the County staff and make revisions as necessary. This memorandum will serve as the guide for subsequent work on the Ordinance.

Additionally, SCA will work with Planning staff to develop a new set of County permit application forms. An efficient, standardized set of forms used to initiate applications for General Plan amendments, zoning changes, subdivisions, parcel maps, use permits, and variances will be prepared by SCA for use at the County Planning counter. (Optional Revision)

## **11.2 Prepare Administrative Draft**



SCA will prepare a complete Administrative Draft of the Zoning Ordinance based on the approach memorandum developed in Task 11.1. The purpose of this draft will be to provide the County staff the opportunity to comment on the Zoning Ordinance before it becomes available for public discussion. We expect that the staff will have many useful insights, and we want to ensure that the Zoning Ordinance reflects this knowledge. The graphics in the Administrative Draft may be in sketch form. After the County staff has had the opportunity to review the draft, SCA will meet with them to discuss their comments.

### **11.3 Prepare Public Review Draft**

Based on the comments received from the staff in Task 11.2, SCA will develop the Public Review Draft of the Zoning Ordinance. Graphics will be in a form suitable for public review.

SCA will attend up to four public meetings/hearings on the Zoning Ordinance and will be prepared to take an active role in the public review process. The range of options for SCA participation range from leading the meetings to being available to answer questions. In any case, we recommend that the County staff take an active role in these meetings.

The EIR for the General Plan is expected to cover the Zoning Ordinance as well. The project budget does not include the preparation of a supplemental EIR, which may be required if new issues come up in the Zoning Ordinance hearings which were not addressed in the General Plan EIR. It is unlikely that this will occur.

### **11.4 Prepare Final Ordinance**

SCA will incorporate changes resulting from the public hearing process and approved by the Board of Supervisors into the Public Review Draft to produce the Final Ordinance. In addition to the 100 copies and the camera-ready copy, IBM PC-compatible diskettes will be provided of the Final Ordinance so the County can easily amend the ordinance in the future. SCA is available, on a supplemental contract basis, to review amendments or draft them so that internal consistency of the ordinance and ease of use is maintained over time.

The preparation of the zoning maps are not included in this work program. In our experience, it would be more cost effective for the County staff to prepare these maps. However, SCA will be pleased to provide a quote if desired.

#### **PRODUCTS:**

1. Approach Memorandum
2. Administrative Draft of Zoning Ordinance
3. Public Review Draft of Zoning Ordinance (100 copies)
4. Final Zoning Ordinance (100 copies and one set of IBM(PC)-compatible diskettes)
5. One camera-ready set of new permit application forms. (Optional Revision)

#### **MEETINGS:**

1. Joint Planning Commission/Board of Supervisors Meeting to review Approach Memorandum
2. Joint Planning Commission/Board of Supervisors Meeting to review Administrative Draft
3. Four public hearings

## **TASK 12.0: PROJECT ADMINISTRATION**

### **Objectives:**

- To monitor the performance of subcontractors and ensure that their work is sufficiently comprehensive and accurate to meet the requirements of the planning program
- To prepare regular progress reports for the client and keep the client apprised of the project's status
- To ensure that work is produced in a timely manner and that staff resources are allocated in a way that is efficient and which meets the project schedule and budget
- To review and amend the contract as needed

### **12.1 Manage Consultant Team**

SCA would have on-going responsibility for coordinating the subconsultants retained to perform specialized portions of the work program. Coordination responsibilities would include defining work scopes and levels of effort, supervising subcontractor work efforts, assuring quality control, and assuring adherence to the work program and budget.

### **12.2 Prepare Progress Reports**

To ensure that staff, the Planning Commission, and the Board of Supervisors are adequately informed regarding the work program, the Consultant will prepare monthly progress reports.

### **12.3 Coordination of County Responsibilities**

SCA would meet with the county's project manager on a quarterly basis, or more frequently if necessary, to specifically define the work tasks which are anticipated to be conducted by county staff.

### **PRODUCT:**

1. Monthly Progress Reports (1 copy)

## MEETINGS:

1. Monthly Coordination Meetings assumed in project budget

## ~~TASK 13.0: — GIS SYSTEM (OPTIONAL)~~

### ~~Objectives:~~

- — — To conduct a pilot program illustrating the use of GIS

~~(This task is an optional task which is to be done at the discretion of the County. The review in Task 1 will provide the information required to make this decision.)~~

~~Psonas will apply the recommended GIS mapping strategy identified in Task 1.4 to a small geographic area within El Dorado County. The program is intended to confirm that the system meets County needs. The results will be reviewed with the County Surveyor's Office, Assessor's Office, Administrator's Office, Planning and Building Inspection Departments, Georgetown Divide PUD, Cameron Park ESD, El Dorado Hills CSD, Sheriff, Data Processing, Solid Waste, Fire Districts, and cities of Placerville and South Lake Tahoe.~~

### ~~PRODUCTS:~~

1. — — Pilot Program GIS application

## MEETINGS:

1. — — Approximately ten meetings to discuss Pilot GIS Program (Psonas)





**APPENDIX B**  
**ANNOTATED BIBLIOGRAPHY**





## LAND USE

Airport Land Use Commission. *Cameron Airpark Airport Comprehensive Land Use plan*. Airport Land Use Commission. Auburn, CA: June 1986.

This document establishes a specific planning boundary map and comprehensive land use plan that defines compatible types and patterns for any future development that might occur in the area surrounding Cameron Airpark. The major issues addressed are height, noise and safety. There is also a plan implementation section.

California State Legal Codes. *Title 7.4: Tahoe Regional Planning Compact*. State of California. Sacramento, CA: date unknown.

This is the legal code that established the Tahoe Regional Planning Compact. The compact includes definitions, organizations, personnel, planning, EIS, finances and transportation district.

-----, *Title 7.4.1: Tahoe Conservancy Agency Compacts*. State of California. Sacramento, CA: date unknown.

This is a duplicate of Title 7.4, but specifically targeted to the California Agency -- Tahoe Conservancy Agency.

El Dorado County Community Development Department. *Guide for submitting final subdivision maps for rural subdivisions*. El Dorado County. Placerville, CA: November 1984.

This submittal guide provides an overview of the submittal procedure, an example of the forms used for processing final map, security forms, and request forms for reduction or release of security.

-----, *Major Land Division Ordinance Standard Subdivisions and Rural Subdivisions*. El Dorado County. Placerville, CA: July, 1989.

This article is enacted to provide additional standards governing the design, improvement, survey and official map of major land divisions to insure that growth and development of the county is orderly. Article I covers general provisions, administration and enforcement, conditions and requirements, improvements, preliminary maps, tentative maps, final maps and surveys. Article III covers the improvement requirements for rural subdivisions.

-----, *Minor Land Division Ordinance*. El Dorado County. Placerville, CA: May 1986.

This documents sets forth the regulations that govern the division of any and all land within the unincorporated territory of the county where four or fewer parcels, condominium units or community project apartments are created except where each parcel created by the division has a gross area of not less than 40 acres or is not less than a quarter of a quarter section.

-----, *Subdivision Design and Improvement Standards Manual*. El Dorado County. Placerville, CA: May 1986.

This documents specifies the standards for subdivision design and improvement. The document is separated into four volumes: land capability report for tentative maps; design standards for subdivisions; erosion control requirements and specifications; and standard plans, typical cross-section.

El Dorado County Community Development Department, Planning Division. *Area Plans*. El Dorado County. Placerville, CA: date varies.

Each area plan is divided into four sections: plan recommendations, existing environmental setting, cultural setting and environmental impact report. (See El

Dorado County Planning Department Area Plans.) The newer plans have more and better defined goals and policies, and lengthier EIR's. *Greenstone Area Plan*, March 1985; *Camino-Fruitridge Area Plan*, March 1985.

- , *Housing Element*. El Dorado County. Placerville, CA: July 1984.  
This good-sized document first describes the nature of housing plans. It then describes the goals and programs of the plan. The third section details the existing housing needs, projected housing needs, land inventory, constraints and obstacles, and energy conservation. The final section focuses in on the Tahoe Basin.
- , *River Management Plan South Fork of the American River, Volume 1*. El Dorado County. Placerville, CA: April 1984.  
The River Management Plan and EIR are presented in two volumes: the plan is Volume I, and the EIR is in Volume II. While the overall scope is to provide a comprehensive plan for the South Fork of the American River, the Plan specifically focuses on the river section from Chili Bar through Folsom Reservoir. The introduction section discusses the region, authority, limits and persons who assisted in the assembly of the River Management Plan. Section II presents general background information and the county's management objectives. The next section details how the river will be regulated. Section IV provides an inventory and analysis of existing river related land use and presents proposed land use. Section V relates the river plan to other plans, and Section VI provides estimates and recommendations for the acquisition and development of river facilities.
- El Dorado County Planning Department. *American Flat-Spanish Flat-Bear Creek Area Plan*. El Dorado County. Placerville, CA: October 1975.  
This area plan is the summary of the Citizens Planning Advisory Committee Report for the land use plan of the communities of Bear Creek, American Flat and Spanish Flat. The document begins with a policy statement of the committee, followed by historical background, economic resources, community services, land use goals, and development policies. This is a very short document, with no EIR attached.
- , *Area Plans*. El Dorado County. Placerville, CA: date varies.  
Each area plan is divided into four sections: plan recommendations, existing environmental setting, cultural setting, and environmental impact report. The first section, plan recommendations, begins by explaining the purpose of the general plan, the community issues, and assumptions about growth and development. A limited number of goals and policies follow the assumptions, while the following descriptive information makes up the bulk of the report. The EIR is the last section. *Shingle Springs Area Plan*, July 1977; *Pleasant Valley-Oak Hill-Sty Park Area Plan*, July 1978; *Garden Valley Area Plan*, August 1979; *Diamond Springs Area Plan*, December 1979; *Georgetown Area Plan*, December 1979; *Kelsey Area Plan*, December 1979; *Barnett Ranch Area Plan*, March 1980; *Lathrope Area Plan*, March 1981; *Cameron Park Area Plan*, December 1981; *Placerville Periphery Area Plan*, March 1982; *American River Canyon Area Plan*, August 1982; *Cool-Pilot Hill Area Plan*, December 1982; *Somerset-Fairplay-Mt. Aukum (South County) Area Plan*, December 1982; *Pollock Pines Area Plan (and separate Appendix)*, September 1983; *El Dorado Hills-Salmon Falls Area Plan*, December 1983.
- , *Area Plans*. El Dorado County. Placerville, CA: date varies.  
These older area plans begin with a historical perspective and environmental description of the study area. The next sections explain the purpose of the plan and plan assumptions. These are followed by land use development goals and policies. The last section summarizes existing and proposed land use status. *Greenwood Area Plan*, March 1976; *Rescue Area Plan*, November 1976.



- , *Community Design Guide*. El Dorado County. Placerville, CA: November 1981.  
This design guide spells out specific criteria for site planning, building design, landscaping, buffering, signs and parking. The plan then pulls out specific concerns of industrial, commercial, professional, multi-family, service stations, restaurants, motels and shopping centers projects.
  
- , *Historic Design Guide*. El Dorado County. Placerville, CA: date unknown.  
The two historic ordinances are included (very short). The bulk of the document shows photos of historic buildings and a brief description of general building trends associated with the photo. The photos are arranged into single family homes, multi-family homes, commercial, service stations. Signs, fonts, light industrial and storage buildings, historical equipment displays and walls and fences.
  
- , *Long Range Land Use Plan*. El Dorado County. Placerville, CA: December 1981.  
The Long Range Land Use Plan and Policies are designed and intended to provide a general pattern for land uses in El Dorado County for a 20 year time period. The plan acts to guide the specific land uses displayed in the Area Plans and regulate how and where area plans are amended. The document is separated into three divisions: Agricultural lands, urban lands, and rural residential lands. Each division contains goals and development policies. The beginning of the document has master policies which apply to all three of the divisions listed in the Long Rand Land Use Plan and Policies.
  
- , *Sierra Design Guide*. El Dorado County. Placerville, CA: October 1982.  
This document first describes the overall summer and winter design considerations for the sierras. It then covers the more specific topics of: aesthetics, snow problems, erosion, orientation, landscaping, buffering, pedestrian circulation, recreation, parking, building design, and signage design and restraints. The document is small, but provides useful photographic examples of standards.
  
- El Dorado County Recreation Commission. *Amendment to the Recreational Element of the El Dorado County General Plan*. El Dorado County. Placerville, CA: October 1978.  
The amendment to the Recreational Element is organized into three major sections. Section 1 describes general background information and recreational policies and standards that may be applied to all areas of El Dorado County except lands within the Cameron Park Community Services District or the El Dorado Hills Community Services District. Section 2 and 3 deal specifically with policies and standards for those two areas.
  
- El Dorado Hills Investors. *Development Agreement by and between the County of El Dorado and El Dorado Hills Investors*. El Dorado Hills Communities. El Dorado Hills, CA: January 1989.  
The development agreement covers the general provisions, development of the property, developer obligations, county obligations, annual review, default, enforcement and remedies, and miscellaneous provisions. It also includes a spreadsheet on annual project residential closing by village.
  
- El Dorado Hills/Salmon Falls Area Plan Advisory Committee. *Proposed Amendment to El Dorado Hills/Salmon Falls Area Plan*. El Dorado Hills/Salmon Falls Area Plan Advisory Committee. El Dorado Hills, CA: October 1989.  
The amendment seeks to include the "village concept" into the current plan.
  
- Mintier, J. Lawrence and Associates. *City of Placerville General Plan Draft Environmental Impact Report*. City of Placerville. Placerville, CA: February 1988.  
The contents of the EIR include a project description and impact summary; land use; housing and population impacts; transportation impacts; public facility and service impacts; environmental impacts; and alternatives.



- , Lawrence and Associates. *City of Placerville General Plan Policy Document*. City of Placerville. Placerville, CA: February 1988 (revised).  
The policy document begins with an introduction to the purpose and nature of the general plan and land use and circulation standards. The bulk of the report specifies goals, policies, and implementation programs for: land use; housing; transportation; public facilities and services; natural, cultural and scenic resources; health and safety; community design, and administration and implementation. The format of the document puts implementation programs directly after goals and policies. This helps the reader see the connection between the plan and how it effects the community.
- Noble, Doug. *Existing Vacant Industrial Land Inventory and Analysis, Western El Dorado County*. Summitview Development. Placerville, CA: April 1989.  
The author presents an analysis of current industrial land available and need. The data for his analysis is included.
- Sierra Economic Development District. *Industrial Site Survey, El Dorado County*. Sierra Economic Development District. Auburn, CA: May 1981.  
This report is divided into three sections. The first introduces the book and explains how to use the tables. The second section is a matrix of El Dorado County Resources and Constraints. The third section is the bulk of the document. A map locates each site, followed by a small database on location, size, available transportation, power and gas, floodplains, infrastructure, soils, and public safety.
- South Lake Tahoe. *General Plan*. City of South Lake Tahoe. South Lake Tahoe, CA: date unknown.  
The document includes the land use element, noise element, safety element, conservation and housing. There are also appendices on 1) Present and Projected Population for the City of South Lake Tahoe and Tahoe Basin, 2) State Census Data Center - 1980 Summary Tape, and 3) Sierra Planning Organization, Sierra Economic Development District Regional Housing Allocation Plan for Sierra Planning Organization.
- , *Land Use Element*. City of South Lake Tahoe. South Lake Tahoe, CA: May 1988.  
This is a standard land use map that designates areas for residential, commercial, industrial, public open space and transportation land uses.
- Tahoe Regional Planning Agency. *Environmental Impact Statement for Adoption of a Regional Plan for the Lake Tahoe Basin*. Tahoe Regional Planning Agency. South Lake Tahoe, CA: February 1982.  
This environmental impact statement describes a series of alternatives to be considered for adoption as the amended Regional Plan for the Lake Tahoe Basin. Policy alternatives for the Land Use, Transportation, Conservation, Recreation, and Public Services and Facilities Elements are presented. In addition, alternatives are presented for the Implementation Element displaying optional ways to prioritize and manage development and assess the financial strategies for implementation of the Plan. A TRPA staff recommendation is presented following a discussion of the environmental consequences anticipated with implementation of each alternative.
- United States Department of Agriculture, Forest Service. *Appendix Volume, Eldorado National Forest, Land and Resource Management Plan*. United States Department of Agriculture, Forest Service. San Francisco, CA: 1988.  
These appendices accompany the EIS. Other appendices which accompany the Land and Resource Management Plan are bound in the same volume as the plan. Appendix N is separate.

- , *Eldorado National Forest, Land and Resource Management Plan*. United States Department of Agriculture, Forest Service. San Francisco, CA: 1988.  
This document presents the management strategy for the next 10 to 15 years. It begins with public issues and management concerns and a summary of the management situation. The next two sections describe management direction and monitoring and evaluation requirements. The document includes several appendices.
- , *Land and Resource Management Plan, Lake Tahoe Basin Management Unit*. United States Department of Agriculture, Forest Service. San Francisco, CA: 1988.  
This document presents the management strategy for the next 10 to 15 years. It begins with public issues and management concerns and a summary of the management situation. The next two sections describe management direction and monitoring and evaluation requirements. The document includes several appendices.
- , *Record of Decision, Eldorado a National Forest, Land and Resource Management Plan*. United States Department of Agriculture, Forest Service. San Francisco, CA: 1988.  
This document presents the decision regarding the selection of a land and resource management plan for the national forest land within the Eldorado Nation Forest. It summarizes the reasons for choosing Alternative "A" as the basis for the Forest Plan which will be followed for the next 10 to 15 years. Estimates of the long-term environmental and economic consequences contained in the Environmental Impact Statement were considered in the decision.
- , *Record of Decision, Final Environmental Impact Statement, Land and Resource Management Plan Lake Tahoe Basin Management Unit*. United States Department of Agriculture, Forest Service. San Francisco, CA: 1988.  
This document presents the decision regarding the selection of a land and resource management plan for the national forest land within the Lake Tahoe Basin. It summarizes the reasons for choosing alternative "A" as the basis for the forest plan which will be followed for the next 10 to 15 years. Estimates of the long-term environmental and economic consequences contained in the environmental impact statement were considered in the decision.
- Wade and Guzzardo. *El Dorado Hill Specific Plan*. Anthony M. Guzzardo and Associates, Inc. San Francisco, CA: July 1988.  
The El Dorado Hills Specific Plan has residential land use, commercial land use, special land use, circulation, open space, public facilities and services, public infrastructure and implementation elements.



## NATURAL ENVIRONMENT

American River Land Trust. *Preserving Open Space, Protecting Wildlife*. American River Land Trust. Coloma, CA: 1989.

This is a brochure that describes the responsibilities of the newly-founded American River Land Trust.

California Department of Conservation, Division of Mines and Geology. *Mineral Land Classification of the Camino and Mokelumne Hill 15-minute Quadrangles, El Dorado, Amador and Calaveras Counties, California*. California Department of Conservation. Sacramento, CA: 1984.

This document provides geologic summaries of the region and the Camino and Mokelumne Hill areas, the method of classification, and mineral deposit classifications by formation process.

-----, *Mineral Land Classification of the Folsom 15-minute Quadrangle, Sacramento, El Dorado, Placer and Amador Counties, CA*. California Department of Conservation. Sacramento, CA: 1984.

This document provides geologic summaries of the region and Auburn quadrangle, the method of classification, and mineral deposit classifications by formation process.

-----, *Mineral Land Classification of the Georgetown 15-minute Quadrangle, El Dorado and Placer Counties, California*. California Department of Conservation. Sacramento, CA: 1983.

This document provides geologic summaries of the region and Auburn quadrangle, the method of classification, and mineral deposit classifications by formation process.

-----, *Mineral Land Classification, Portland Cement Concrete, Grade Aggregate in the Sacramento-Fairfield Production-Consumption Region*. California Department of Conservation. Sacramento, CA: 1985.

The first half of the document establishes and classifies numerous resource zones in the area. The second half evaluates the PCC aggregate, compares an estimated future demand with current reserves and suggests some alternative sources of aggregate.

California Department of Fish and Game. *What are Oak Trees Good for Anyway?* California Department of Fish and Game. Redding, CA: date unknown.

This is a very brief leaflet on oak trees and their value to the ecology.

California Department of Forestry. *The Urbanizing Forest*. California Department of Forestry. Sacramento, CA: date unknown.

This is an information leaflet on how to deal with native trees during and after construction. It also gives simple guidelines on how to select trees for removal and how to take care of trees near homesites.

California Department of Parks and Recreation, Resources Agency. *Lake Valley State Recreation Area General Plan*. State Park and Recreation Commission. Sacramento, CA: October 1988.

The plan summarizes the available information about the area, documenting the planning process and the relevant data used in making land use decisions and specific management and development proposals. The elements of the plan are: resource, interpretive, concession, operations, land use, facilities and environmental impact.



California State Division of Mines and Geology, Mineral Resource Analysis Project. *Active Mine File*. Division of Mines and Geology. Sacramento, CA: August 1989.  
This is a list of active mines in the El Dorado County area.

El Dorado County Board of Supervisors. *Resolution No. 77-85, Measure "A"*. El Dorado County. Placerville, CA: April 1985.

Measure "A" deals with land use conflicts between rural and rural-residential uses and mining uses. It attempt to minimize conflicts by creating adequate buffer zones between uses.

El Dorado County Community Development Department, Planning Division. *Noise Element*. El Dorado County. Placerville, CA: August 1989.

This document first describes the characteristics of sound and then presents the county policies regarding noise. The following sections identify noise sources, sensitive areas, maximum levels in land use areas, sound attenuation, and implementation.

-----, *Open Space and Conservation Element*. El Dorado County. Placerville, CA: October 1984.

The document begins with the goals and objectives and then presents the background and setting. The background section covers the topics of earth, air, water quality, flora and fauna, nuisance, land use, population and housing, transportation/circulation, public services and utilities, energy, and scenic, cultural, and recreational resources. The final section presents the environmental analysis of the plan.

-----, *Seismic Safety and Safety Elements of the General Plan*. El Dorado County. Placerville, CA: July 1982.

This element starts off with goals and policies for seismic safety and geologic hazards. The geologic hazards section concentrates on erosion, soils and subsidence. The sixth section presents the goals and policies for flooding hazards. Section 8 and 9 deal with Fire Hazards; 10 and 11 deal with man-made hazards. The report also goes over other hazards, emergency procedures, peak load water supply requirements, and an emergency plan.

El Dorado County Department of Agriculture. *1988 Agricultural Crop Report*. El Dorado County. Placerville, CA: March 1989.

The Crop Report lists: 1.) acreage, production and value of fruit crops, 2.) production and value of timber harvests; and 3.) the production, quantity and value of nursery stock, ornamental tress and shrubs, Christmas trees, hay, pasture lands, and miscellaneous fruits and vegetables.

El Dorado County. *Reclamation Plan and Exploration and Mining Packet*. El Dorado County. Placerville, CA: date unknown.

This is an application packet for mining.

Kazama, Donald B. *Climate of El Dorado County*. California Energy Commission, Solar Office. Sacramento, CA: April 1980.

The 30 page report on El Dorado County climate provides climate maps on temperature, degree days, solar radiation precipitation, and climate data tables for Auburn, Colfax, Folsom, Georgetown, Placerville, Rocklin, Salt Springs, South Lake Tahoe, Glenbrook, Tahoe City, Tiger Creek, Twin Lakes and Woodfords. It also has a glossary and bibliography.

Koehler, C.S., R.H. Hunt and D.F. Lobel. *Protecting Trees when Building on Forested Land*. University of California Cooperative Extension. Berkeley, CA: 1983.

This leaflet covers pests of forest trees, guidelines to select trees to be saved and construction or maintenance practice to minimize tree death or decline.

Mintier, J. Lawrence and Associates. *City of Placerville General Plan Background Report*. City of Placerville. Placerville, CA: February 1988 (revised).

This recently revised draft gives an overview on land use, housing, population, economy and city finances, transportation, public facilities and services, natural resources, health and safety, urban design, and scenic resources. The document also provides a history of land use planning in Placerville. The document does a particularly good inventory of scenic resources and historic sites.

Nevada State Library. *Inventory of Research Activities in the Lake Tahoe Area 1845-1976*. Lake Tahoe Area Research Coordination Board. South Lake Tahoe, CA: October 1976.

Although outdated, this bibliography could be a very useful tool in researching the South Lake Tahoe Area. The bibliography is categorized by subject: air, land, water, vegetation, animal and socio-economic. There is also a cross reference by author and subject.

State of California, Department of Parks and Recreation. *Marshall Gold Discovery State Historic Park General Plan*. Department of Parks and Recreation. Sacramento, CA: 1979.

The Historic Park Plan is divided into four major elements: resource, land use and facilities, operations, and environmental impact.

State Water Resources Control Board. *Lake Tahoe Basin Water Quality Plan Proposed Final Plan and Summary*. State Water Resources Control Board. Sacramento, CA: September 1980.

This is the definitive plan for the Lake Tahoe Basin. It covers the water quality of the basin, describing general features of the lake, the open lake, nearby waters, tributary streams, nutrient and sediment loads, responses of Lake Tahoe to nutrient and sediment loads, as well as water quality standards and a water quality summary. The next section describes the background of planning in the area -- with an emphasis on the authority to regulate land use and water quality. The third chapter describes the sources of water pollution and the control needs to lessen pollution. This is followed by an implementation strategy to enforce controls. Chapter 5 presents the five alternatives and the social, economic, and environmental impacts of the proposed plan. Chapter 6 discusses interstate issues of regional planning and growth. The final chapter offers a conclusion and summary.

Tahoe Regional Planning Agency. *Environmental Impact Statement for the Establishment of Environmental Threshold Carrying Capacities*. Tahoe Regional Planning Agency. South Lake Tahoe, CA: May 1982.

This environmental impact statement describes a proposed action and alternatives to the action for the establishment of environmental threshold carrying capacities. The proposed action is a staff and consultant team recommendation for specific threshold standards that will maintain significant scenic, recreational, educational, scientific, and natural values of the Lake Tahoe Basin. The alternatives provide for different levels of maintaining environmental quality. The environmental consequences of implementing the proposed action and alternatives to it are displayed.

-----, *Lake Tahoe Basin Non-Attainment Plan*. Tahoe Regional Planning Agency. South Lake Tahoe, CA: April 1979.

This lengthy report begins by describing the Lake Tahoe Region -- its physical, geographic, and political characteristics. The document then goes on to define the Clean Air Act and the plan requirements. After describing the existing conditions, the authors give trend analysis and projections.



Tahoe Resource Conservation District and United States Department of Agriculture, Soil Conservation Service. *Long Range Plan*. Government Printing Office. Washington, D.C.: 1979

The bulk of information of this document is supporting data in map form. There is very little text. The eleven pages of text covers: water quality conservation, management of vegetation, structure measures for erosion control, financial assistance, education programs, urban conservation support programs, water resource programs, supporting maps detail climate features, watersheds, soil interpretations, land capability classes, interpretive maps, hydrologic classification, and soil limitation ratings.

United States Department of Agriculture, River Basin Planning Staff. *Cameron Park Watershed Area Study*. United States Department of Agriculture, Soil Conservation Service. Davis, CA: July 1985.

This report offers alternative solutions to the flooding problems in Cameron Park. The report is designed for local community officials who are involved with the regulation of water course development. The report first identifies common problems then presents alternatives and recommendation. Cost analyses are also provided. The appendices cover methods for controlling peak discharges, preparing and enacting appropriate ordinances, and flood hazard boundary maps.

United States Department of Agriculture, Soil Conservation Service and Forest Service. *Soil Survey of El Dorado Area, California*. U.S. Government Printing Office. Washington, D.C.: March 1974.

This is a complete soil survey of the El Dorado Area. It includes detailed descriptions of the soil, its composition and profile, as well as maps that locate the exact locations of soil types.

-----, *Soil Survey of Tahoe Basin Area, California and Nevada*. Government Printing Office. Washington, D.C.: March 1974.

This is a complete soil survey of the Lake Tahoe Basin. It includes detailed descriptions of the soil, its composition and profile, as well as maps that detail the exact location of soil types. The files also includes several pamphlets on using soil surveys to assist in land use planning.

United States Department of Agriculture, Forest Service. *Appendix N, Eldorado National Forest, Land and Resource Management Plan*. United States Department of Agriculture, Forest Service. San Francisco, CA: 1988.

This a separate appendix on public response.

-----, *Appendix Volume, Final Environmental Impact Statement, Land and Resource Management Plan Lake Tahoe Basin Management Unit*. United States Department of Agriculture, Forest Service. San Francisco, CA: 1988.

The Lake Tahoe Basin Management Unit of the USDA Forest Service at South Lake Tahoe, California, has developed a new Land and Resource Management Plan. These appendices accompany the Environmental Impact Statement. Other appendices which accompany the Land and Resource Management Plan are bound in the same volume as the plan.

-----, *Environmental Impact Statement, Eldorado National Forest, Land and Resource Management Plan*. United States Department of Agriculture, Forest Service. San Francisco, CA: 1988.

This EIS describes the proposed action and other alternatives for managing the Eldorado National Forest. These alternatives assign a range and mix of Forest-wide practices and management area prescriptions to the National Forest System landbase. These actions produce a variety of outputs and amenities, together with



their associated costs of doing business. Issues, concerns, and opportunities are defined; the environmental consequences are displayed.

-----, *Final Environmental Impact Statement, Land and Resource Management Plan Lake Tahoe Basin Management Unit*. United States Department of Agriculture, Forest Service. San Francisco, CA: 1988.

This Environmental Impact Statement describes the selected action and alternatives for managing the land and resources administered by the Lake Tahoe Basin Management Unit. The action and alternatives allocate a varying range and mix of management prescriptions and intensities to the National Forest System land base, which results in a variety of outputs, goods, and services at varying costs. The environmental consequences of the action and alternatives are displayed separately on maps.

-----, *Lake Tahoe Basin Management Unit Papers*. United States Department of Agriculture, Forest Service. Place of publication unknown: date unknown.

This unbound report is a collection of information handouts. Topics include: visitor center and nature trails, geology, trees, mammals, birds, bicycling, wildflowers, Tullac historic site, boating, hiking trails, (west, south, north and east shores), horseback riding, and fishing.

-----, *Your Tree's Trouble May Be You!* United States Government Printing Office. Washington, D.C.: 1974.

This leaflet covers the standard injuries that humans inflict upon trees. List includes: building and road construction, flooding, soil compaction, air pollution, lawn and garden equipment, lawn and garden chemicals, salt, wounds, improper pruning, and improper planting.

Woodring, Gary. *Interoffice Memorandum on Proposed Policy for Parks and Recreation Division*. El Dorado County. Placerville, CA: October 1989.

This memo cover general plan elements, policies of board of supervisors on recreation, results of plans and policies for recreation, the nine advisory commissions and committees for parks and recreation, the parks and recreation element of the general plan and regional park funding, and, finally, policy recommendations.

## TRANSPORTATION

DKS Associates. *El Dorado County Circulation Element*. El Dorado County. Placerville, CA: July 1989.

This element has not been adopted. The document begins with existing conditions, future traffic forecasts, and cost and financing alternatives. Next the document presents the circulation element and implementing policies.

El Dorado County Community Development Department, Parks and Recreation Division. *Bikeway Master Plan*. El Dorado County. Placerville, CA: March 1979.

This Master Plan is an effort to coordinate plans and develop a system of bicycle trails which will safely fulfill these needs, transportation and recreation, for the citizens of El Dorado County and the cities. The document reviews other plans and existing bikeways, presents goals, objectives and policies. It then documents the research, needs and design standards, followed by an implementation strategy.

-----, *Hiking and Equestrian Trails Master Plan*. El Dorado County. Placerville, CA: April 1989.

The Master Plan is divided into two major parts: one, stated goals, policies, principles and design standards for trail planning, design and use; and two, the proposed trails system of National, State Regional, Countywide, local trails and proposed trailhead or staging areas for trail access and use.

-----, *El Dorado County Hiking and Equestrian Trails Plan*. El Dorado County. Placerville, CA: April 1989. (map)

This plan shows all trails, trailheads, and activity areas in the county. The trails are classified as federal, state, county, and local.

El Dorado County Community Development Department, Planning Division. *Scenic Highways Element*. El Dorado County. Placerville, CA: November 1984.

This brief document presents the goals and policies regarding scenic highways in El Dorado County (including state, county, gold rush highways).

El Dorado County Department of Transportation. *El Dorado County Circulation Element Specific Road Policies*. El Dorado County. Placerville, CA: July 1989. (unbound)

These policies are abstracted from the Circulation Element prepared by DKS Associates. The document covers roadway functional classification, access control, and roadway cross sections.

El Dorado County Transportation Commission. *El Dorado County Regional Transportation Plan*. El Dorado County. Placerville, CA: November 1982.

The plan is organized into seven chapters that present a description of the region and the planning process, a synopsis of the existing transportation system, an analysis of trends and assumptions, a set of goals and objectives, a description of the actions to implement the Plan, a financial analysis, and an analysis of the environmental impact of the Plan.

LTK Engineering Services. *South Lake Tahoe Guideway Feasibility Study Final Report*. Tahoe Regional Planning Agency. South Lake Tahoe, CA: April 1989.

This report looks at the possibility of building a light rail transit line through the City of South Lake Tahoe and along the eastern edge of the Lake.

Reed, Suzanne. *Interdepartmental Memorandum on Updated Countywide Population Projections*. Chief Administrative Office. Placerville, CA: May 1989.  
This five page memo contains valuable data on countywide forecasts as well as east slope, west slope, South Lake Tahoe, Placerville, and unincorporated areas.

South Lake Tahoe. *Circulation Element of the General Plan*. City of South Lake Tahoe, South Lake Tahoe, CA: date unknown.  
This map designates the scenic highways, arterial streets, collector streets, local streets, new roads under construction, proposed study route, new intersection signalization, construct right turn lane, marina, airport, and proposed stateline circulation improvements.

TAMS/Dames & Moore. *Highway 50 Improvements through Placerville, El Dorado County, Draft Traffic Analysis Report*. City of Placerville and CALTRANS. Placerville, CA: July 1988.  
This analysis covers existing conditions, forecast of future conditions, and initial conclusions and alternative development.

-----, *Draft Project Study Report*. City of Placerville and CALTRANS. Placerville, CA: December 1988.  
The study report contains five volumes. Volume I presents a narrative of the project. Volume II continues by describing the potential impacts of each project alternative. Volume III contains appendices on concepts, costs, utilities, right-of way, and air quality. Volume IV has the preliminary plans, profiles and typical sections. The last volume (V) gives ideas for videotapes or simulated project alternatives.



## UTILITIES

Beck, R.W., and Associates, *Executive Summary and Selected Excerpts from Evaluation of Water Supply Alternatives*. El Dorado Irrigation District, Placerville, CA: January 1989.

This report contains summary and synopsis information from a study comparing five alternative projects which would supply forecast water demands to the year 2020. Implementation factors such as acquisition of water rights, financing and environmental concerns were not addressed. As with other planning studies, all projections of future demand are based on existing County General Plan and zoning. The report focuses on raw water supply only, addressing recommended staging of several potential water supply projects.

Boyle Engineering Corporation. *Water System Master Plan Update*. South Tahoe Public Utility District. South Lake Tahoe, CA: May 1989.

This is an update of the 1979 Master Plan, 1983 Master Plan update and the 1988 Water System Analysis. This update examines water supply, storage, and pipeline distribution needs of the recently acquired Angora/Tahoe Paradise systems over a 20 year period, 1989 to 2009. This update also examines the District's original water system, updating items of particular interest to the District. There is also a summary of recommendation.

California Department of Resources and Georgetown Divide Public Utility District. *Alternative Water Supply Study*. Georgetown Divide Public Utility District. Georgetown, CA: June 1989. DRAFT.

This report reviews the existing Georgetown Divide PUD facilities as of 1985, reviews water consumption for both raw and treated water through 1988, projects future demands and identifies potential projects to satisfy future water demand. This report is still in draft form and is subject to revision by both the Department of Water Resources and the Georgetown Divide PUD. It will not be adopted until final revisions and reviews are complete.

CH2MHill. *Supplement No. 1 to the Preliminary Design Report for El Dorado Irrigation District Assessment District No. 3*. El Dorado Irrigation District. Placerville, CA: April 1984.

This Supplement updated the original Preliminary Design Report for the Assessment District due to changes in basic assumptions regarding water source allocations from Folsom Lake, more favorable viewing of the SOFAR project and additional parcels being included in the Assessment District boundary. The report addresses both water and wastewater system improvements. It is worthy of note that a Supplement No. 2 to this report has been prepared in draft form. El Dorado Irrigation District staff have required some changes in the draft and prefer not to release the information until it is modified. The final version to Supplement No. 2 is past due from the consultant and should be available in the immediate future.

Culp/Welsner/Culp. *Facility Plan Update for South Tahoe Public Utility District Wastewater Treatment System*. South Tahoe Public Utility District. South Lake Tahoe, CA: 1981.

The purpose of this report is to document the facilities need to convert the plant to the recommended alternative of the May 1978 plan. The report also provides background information, describes the facility's needs in detail and presents a cost summary and implementation schedule.

-----, *Summary of Facility Plan for South Tahoe Public Utility District Wastewater Treatment System*. South Tahoe Public Utility District. South Lake Tahoe, CA: 1978.

This plan provides an economic, engineering and environmental evaluation of management alternatives for wastewater treatment. The document is a summary of

the complete plan. It gives condensed versions of each chapter: introduction, existing and projected service, analysis of existing facilities, project alternative analysis, and a summary comparison of the alternatives. The EIR summary describes the environmental setting and the project alternatives and their impacts. The financial plan summary focuses on a revenue program and a financing plan.

Dewante and Stowell. *Master Water Plan*. Georgetown Divide Public Utility District. El Dorado County, Placerville, CA: June 1977.

The report begins with an introduction and then immediately follows up with conclusions and recommendations. To support the recommendations, the authors then go back through the previous reports and applicable information, characteristics and development, existing water facilities, future demands and sources, water system improvements, and financial considerations.

El Dorado Irrigation District. *Policy Statement on Water Supply Reliability*. El Dorado Irrigation District. Placerville, CA: July 1989.

This policy statement establishes standards and procedures by which the adequacy of water supplies and the risks of water shortage may be determined, to provide a basis for maintaining a relationship between water supply and demand.

-----, *Policy Statement – Facilities Capabilities Charge*. El Dorado Irrigation District. Placerville, CA: July 1989.

This policy statement defines the purpose and use of facilities capabilities charges, also known as connection fees for new development, to pay the average cost of facilities provided to serve a new District user.

-----, *Policy Statement – Procedure for Application for Service and Commitment of Service*. El Dorado Irrigation District. Placerville, CA: July 1989.

This policy statement establishes the procedure regarding communication with applicants requesting extension of new water and sewer service and the issuance of commitment for service. The purpose of this procedure is to establish a means by which future District customers can receive assurance of service in accordance with District regulations.

-----, *Regulation No. 8 – Extension or Improvement of Facilities*. El Dorado Irrigation District. Placerville, CA: July 1989.

This regulation establishes formal rules for extension or improvements to District water or sewer facilities when water and/or sewer service is requested for a property which is within the District but which does not abut adequate District facilities.

Envirosphere Company. *Sacramento Municipal Utilities District and Sierra Pacific Power Company Trans-Sierra Transmission Line Project Need Evaluation Report*. Envirosphere Company. Place of publication unknown: June 1986.

This 50 page technical report documents the needs, benefits and alternatives to a transmission line proposed by the Sacramento Utilities District and Sierra Pacific Power Company. The article reviews future demand requirements of each group individually and then collectively as well.

Georgetown Divide Recreation District. *Master Plan Sites, Facilities and Programs District Organization*. Georgetown Divide Recreation District. Georgetown, CA: October 1989.

This eight page plan describes the general goals and objectives, specific goals and objectives, existing sites and facilities, proposed sites and facilities, programs and district organization.



Hunt, R.H., D.H. Adams, B. Roettgering and C.S. Koehler. *Guidelines for developing Ordinances in Urban Forests*. University of California Cooperative Extension. Berkeley, CA: 1982.

These guidelines provide information on how to increase the chances of maintaining new urban forests, minimize the impact on native forest vegetation, and how to implement a tree/vegetation damage prevention program.

John Carollo Engineers. *Analysis of Treatment Systems Capacity*. Expansion. South Tahoe Public Utility District. South Lake Tahoe, CA: August 1988.

The report has been broken down into several sub-areas of work. These include: wastewater treatment plant, export system and export pipeline realignment. The purpose of the report is to provide the District with a basis for budgeting and planning projects required to upgrade the plant to treat expected future flows.

Montgomery, James M., Consulting Engineers, Inc. *Final Report – Wastewater System Master Plan*. El Dorado Irrigation District. Placerville, CA: December, 1981.

This report is a comprehensive planning document for wastewater facilities throughout El Dorado Irrigation District's Service Area. The report identifies a capital improvement program divided in four stages: stage 1 for five years (1982-1986), stage 2 for 1987 through 2000, stage 3 for 2000 to 2020 and stage 4 for ultimate system requirements. The report recommends updating the plan prior to 1987 in advance of any work in stages 2 through 4.

-----, *Final Report – Water System Master Plan*. El Dorado Irrigation District. Placerville, CA: December 1981.

This report is a comprehensive planning document for water facilities throughout El Dorado Irrigation District's Service Area. The report identifies a capital improvement program for five years (1982-1986), and estimates ultimate system requirements. The report recommends updating the plan no later than 1987.

Owen Engineering & Management Consultants, Inc. *Final Report – Deer Creek Sewage Collection Study*. El Dorado Irrigation District. Placerville, CA: March 1988.

This report analyzes the Deer Creek and Mother Lode wastewater collection systems and identifies several staged construction projects to allow compliance with discharge requirements while providing for future growth. Construction projects were recommended for 1988, 1989 and 1992. The report focuses on wastewater collection only with the exception of discussing remedial measures for the El Dorado Pond facility.

Quad Consultants. *Environmental Impact Report/Environmental Impact Statement, South Tahoe Public Utility District, 0.2 MGD Wastewater Treatment Facility Expansion*. South Lake Tahoe Public Utility District and Tahoe Regional Planning Agency. Sacramento, CA: September 1989 (State Clearinghouse #88121910).

The purpose of the report is to identify the impacts of the 0.2 MGD expansion, including use of presently unallocated capacity and to present a mitigation program which reduces impacts of the project to a less than significant level. This bulk document has five sections: 1) Summary and Comprehensive Evaluation, 2) 7.7 MGD Mitigation Program, 3) Project Description and Alternatives, 4) Settings, Impacts and Mitigation, 5) Comments and Responses on the DEIR.

-----, *Status Report 4 of the South Tahoe Mitigation Program*. South Lake Tahoe Mitigation Task Force. South Lake Tahoe, CA: February 1983.

The document begins with an overview of the mitigation program: program history, grant conditions and schedule. The report then describes the progress of the mitigation program – status report 4 is one milestone in the progression. Chapter three provides an interpretation of the STPUD Mitigation Report, defining terms and explaining how to read the status and summary report. The bulk of the document is



the status report. The name is misleading, it is actually a series of tables and summary tables -- without written analysis or clarification. The could be a good data source.

Tahoe City Public Utility District. *Service Area Map and Five Year Capital Improvement Plans for Water, Sewer, and Parks/Recreation*. Tahoe City Public Utility District. Tahoe City, CA: October 1989.

Just like the title says, the service area map and spreadsheets of the five year capital improvement plan for the Tahoe City area.

## DEMOGRAPHICS

Community Development Information Services. *Enrollment Study and Facilities Plan*. Lake Tahoe Unified School District. South Lake Tahoe, CA: January 1989.

This report looks at the current school facilities, providing needed classrooms, and paying for new classrooms.

El Dorado County Board of Supervisors. *Resolution No. 251-89*. El Dorado County. Placerville, CA: August 1989.

The resolution orders the change of school district boundaries of the Gold Trail Union School District and the Black Oak Mine Unified School.

El Dorado County Community Development Department, Building Division. *Example of data available from building department records*. Placerville, CA: January 1980.

These are sample sheets from building records data output. Information goes back to May 1987.

El Dorado County Superintendent of Schools. *El Dorado County Schools, Western Slope*. El Dorado County Office of Education. Placerville, CA: date unknown.

This brochure provides a listing of school districts, offices (address and phone), and boundaries.

Field, Peter M. *Demographic Analysis '88*. Black Oak Mine Unified School District. Coloma, CA: May 1988.

The compendium presents data and analysis on growth and school enrollment. Additional comments are provided for each community/area.

Local Agency Formation Commission. *List of Special Districts in El Dorado County*. Local Agency Formation Commission. Placerville, CA: 1989.

This is an unbound collection of all special districts in El Dorado County. The Collection includes: fire districts, county service areas, community service districts, mailing list for CSA #2 and #9 zones of benefit, water districts, resource conservation districts, cemetery districts.

\_\_\_\_\_. *Resolution of District Formations*. Local Agency Formation Commission. Placerville, CA: date varies.

This is a collection of the resolutions made by the Local Agency Formation Commission that established various districts. Districts include: resort improvement, recreation, resource conservation, irrigation, toll tunnel, sanitation, public utilities, fire protection, community services, community service areas, and cities.

## FISCAL

Andersen, Ralph & Associates. *Report of the Survey of Fiscal and Economic Problems of Rural Counties*. Regional Council of Rural Counties. Sacramento, CA: January 1989. There are lots of charts and graphs in this one! The document presents the survey results of rural counties in California. Issues include: budget, services, trial court funding, rural economic development, county revenue stabilization act and economic information. An additional fiscal survey was done for El Dorado, Lassen, Mariposa, Mendocino, and Tehama Counties. The report also makes recommendations based on the survey.

El Dorado County Board of Realtors. *Sales Information*. El Dorado County Board of Realtors, Inc. Shingle Springs, CA: 1989.  
This is raw data on home sales activity for 1988 and 1989.

El Dorado County Chamber of Commerce Economic Development Program. *El Dorado County Economic Development Plan*. El Dorado County Chamber of Commerce. Placerville, CA: February 1989.  
This report is in three parts. The first section introduces the plan and describes the background and methods and limitations. The second section is an analysis of the business climate. It covers demographics, quality of life, business environment, laborforce, real estate, transportation, resources and utilities, services and education. The last section is the economic development strategic plan. This section discusses: business retention and expansion; new business attraction; entrepreneurial development; South Lake Tahoe development; recreation, entertainment, and tourism; agricultural support and development; film production; community long range planning; community pride; and program administration.

Rosall, Remmen and Cares. *Commercial Allocation Analysis for Six Community Plan Areas*. El Dorado County, City of South Lake Tahoe and Tahoe Regional Planning Agency. Boulder, CO: August 1989.  
This study looks at the most appropriate allocation of retail commercial square footage to six Community Plan areas in the South Lake Tahoe area. The results of the study address the following goals: quantify the overall demand for retail/commercial space in South Lake Tahoe, both now and in the future; recommend the most appropriate general store types and orientations for commercial development; and determine the allocation of this development so that it meets the needs of locals and tourists and has positive impacts on the community.

Sierra Economic Development District. *Economic Base Analysis for the Four-County Region*. Sierra Economic Development District. Auburn, CA: October 1989 (Seventh Edition)  
This document is a collection of maps and tables for the counties of El Dorado, Nevada, Placer, and Sierra. The maps and tables cover information on population, wage and salary employment (1987 and 1988), location quotients, share of employment by industry, industries ranked by share of employment, and annual average wage and salary employment (1987-1988).

United States Department of Agriculture, Forest Service. *Dollars and Sense about Your Trees*. United States Government Printing Office. Washington, D.C.: date unknown.  
This is an information leaflet on the density of trees and property value of homesites.



## MISCELLANEOUS

California Department of Parks and Recreation. *Folder of State Parks*. California Department of Parks and Recreation. Tahoma, CA: dates unknown.

This folder contains pamphlets on the Tahoe Area, California, Sugar Pine Point, Emerald Bay, and the Sierra District.

California Energy Commission, Solar Office. *Solar Access: A Local Responsibility (a supplement to 1978 legislation)*. State of California. Sacramento, CA: June 1979.

This supplement presents information to local government agencies as they grapple with issues of solar access. It supplements *Solar Access: A Local Responsibility*. Solar access describes solar access protection through zoning and subdivision regulations as it existed before the new laws. The new laws, as described in this supplement, add to the measure that local governments can take.

CST Consulting Services. El Dorado County Board of Supervisors/Planning Commission Joint Meeting Summary Report. CST Consulting Services. Sacramento, CA: March 1989.

This report presents an overview and summary of the March 8th workshop. It contains highlights of that day-long experience. The report is not intended as minutes or as a transcript of the meeting.

El Dorado County Chamber of Commerce. *El Dorado 1989*. Journal Publications. Sacramento, CA: 1989.

This glossy information brochure provides brief descriptions of the major areas/communities, county history, the job market, real estate, agriculture, tourism, cost of living, housing, health care, schools, child care, recreation, resident biographies and cultural offerings.

El Dorado County Community Development Department, Planning Division. *Off-Road Vehicle (ORV) Study*. El Dorado County. Placerville, CA: September 1983.

This is a preliminary study on Off-Road Vehicle. The results, so far, are existing regulations from San Bernardino County, Santa Clara County, Madera County, San Diego County.

El Dorado County Recorder. *Synopsis of Special Meeting/Workshop Board of Supervisors and El Dorado County Planning Commission*. El Dorado County. Placerville, CA: March 1989.

A joint workshop involving the El Dorado County Planning Commission, the Board of Supervisors, staff and interested public members was held March 2, 3, and 8, 1989. The participants met to discuss its growth and development. Current trends, areas of concern, standards, and priorities.

El Dorado County. *Grading, Erosion and Sediment Control Ordinance*. El Dorado County. Placerville, CA: August 1989.

The ordinance covers general requirements, permit requirements, procedures, plans and specification, design standards, improvement security, enforcement, additional provisions and urgency ordinance.

-----, *Pamphlets on Erosion Control Practices*. El Dorado County. Placerville, CA: date unknown.

These loose handouts cover erosion practices for temporary structures, permanent structures and during construction.

El Dorado Irrigation District. *Policy Statement on Procedure for Application for Service and Commitment of Service*. El Dorado Irrigation District. Place of publication unknown: September 1981.

This policy statement establishes the procedure regarding communication with applicants requesting extension of new water and sewer service and the issuance of commitment for service.

McNeil, Steve and Beverly Scott. *Mother Lode Spatial and Architectural Research Project*. University of California, Davis. Davis, CA: 1980.

The unbound papers are printouts of a Hypercard Stack Program of the "Mother Code" area. The stack covers suitability studies, space needs for the future, History of Physical Development, Visual Analysis of the Highway 49 Corridor, Architectural Survey, Business Survey and Ethnic Survey. This information is not very useful with the accompanying program.

Oxnard City Council. *A Resolution of the City Council of the City of Oxnard Reestablishing the Oxnard Advisory Committee and Adopting By-laws which Govern the Organization*. City of Oxnard. Oxnard, CA: date unknown.

This is an example ordinance for a citizen advisory committee.

South Lake Tahoe Planning Department. *City Code Section 25 Signs and Advertising Structures*. South Lake Tahoe Planning Department. South Lake Tahoe, CA: date unknown.

Zoning Ordinance and codes for signs and advertising structures in the city of South Lake Tahoe.

South Lake Tahoe. *Tahoe Renaissance 90*. City of South Lake Tahoe. South Lake Tahoe, CA: August 1989.

This strategic plan addresses a variety of critical issues and proposes appropriate actions to meet current and prospective challenges.

Tahoe Resource Conservation District, Nevada Tahoe Conservation District and the United States Department of Agriculture, Soil Conservation Service. *A practical guide to building in the Lake Tahoe Basin*. Nevada Tahoe Conservation District, Tahoe Resource Conservation District and United States Department of Agriculture, Soil Conservation Service. South Lake Tahoe, CA: June 1985.

This pamphlet is mainly conceived with controlling erosion into the Lake Tahoe Basin. It offers several suggestions of stabilizing. Soils, controlling runoff, determining slope length, retaining vegetation, siting and design.

Tahoe Resource Conservation District. *Lake Tahoe Basin Environmental Permit Directory, El Dorado and Placerville Counties*. Tahoe Resource Conservation District. South Lake Tahoe, CA: date unknown.

This pamphlet provides a guide for property owners and others regarding Lake Tahoe's various service and regulatory agencies.

-----, *1988 Annual Report and 1989 Work Plan*. Tahoe Resource Conservation District. South Lake Tahoe, CA: 1988.

The annual report section of this document gives brief descriptions of the erosion control projects in Placer and El Dorado Counties, the State Association Activities and Information Program and Agency Involvement. The 1989 Work Plan describes the planning and implementation of Erosion Control program, the Urban Conservation Program, and the Education and Information Program.

United States Department of Interior, Bureau of Outdoor Recreation. *A Special Place Lake Tahoe*. Washington, D.C.: United States Government Printing Office, 1973.

Although outdated in regard to policies, this small pamphlet gives good descriptive information on the Lake Tahoe Basin and the beginnings of the regional governing effort.

United States Department of Agriculture, Forest Service. *Eldorado National Forest, Recreation Visitor Map*. United States Department of Agriculture, Forest Service. San Francisco, CA: 1979.

This is the official recreation visitor map.

-----, *Overview of the Forest Plan, Lake Tahoe Basin Management Unit*. United States Department of Agriculture, Forest Service Pacific Southwest Region. Place of publication unknown: 1988.

This small document looks at the Land and Resource Management Plan for the Lake Tahoe Basin Management Unit. The overview looks at the format of the Forest Plan, the Management Areas, and Implementation.

Wilsey, Ham and Blair. *Lake Tahoe 1980 Regional Plan*. Tahoe Regional Planning Commission. Place of publication unknown: May 1964.

This is the first plan done for the Lake Tahoe Basin. It is included in the library because of its excellent format and book-like design -- complete with Ansel Adams photographs.





Sewer Service Districts. 1971. 1"=2 miles.

Slopes. 1971. 1"=2 miles.

Soil Types. 1971. 1"=2 miles.

Soils of Western El Dorado County. 1974. 1.2"=1 mile.

Temperature Range by Sector (January). 1971. 1"=2 miles.

Temperature Range by Sector (July). 1971. 1"=2 miles.

Timber Preserves. date unknown. 1"=1 mile.

Transportation, Average Daily Traffic. 1969. 1"=2 miles.

Transportation/Circulation. 1971. 1"=2 miles.

Water Development (Existing, Proposed and Possible Sites). 1971. 1"=2 miles.

Water Service Areas. 1971. 1"=2 miles.

Watersheds. 1971. 1"=2 miles.

## MAPS

Agricultural Preserves, El Dorado County. October 1989. 1"=2 miles.

Agricultural Uses (by elevation). 1971. 1"=2 miles.

Agriculture, Important Farmland Map of El Dorado County, Western Portion (Draft). date unknown. 1"=1 mile.

Census Tracts, 1970. 1971. 1"=2 miles.

Deer Herd and Migration Routes of El Dorado County. 1989. 15' USGS Quads.

Deer Herd and Migration Routes of El Dorado County. 1984. 1"=1 mile.

Electrical System (service areas and major generation and transportation facilities). 1971. 1"=2 miles.

Elevations (1000 foot increments). 1971. 1"=2 miles.

Fire Factors (Vegetation type and fuel loading on non-USFS lands). 1971. 1"=2 miles.

Fire Protection Districts. 1968. 1"=2 miles.

Fires, Majors USFS and Private Land Fires. 1971. 1"=2 miles.

General Plan Map. 1971. 1"=2 miles.

Geology. 1971. 1"=2 miles.

Historic Sites and Structures. 1971. 1"=2 miles.

Historic Sites and Structures. 1984. 1"=2 miles.

Industrial Lands (Existing and Proposed). 1971. 1"=2 miles.

Industrial Lands in El Dorado County. date unknown. 1"=1 mile.

Land Use, Generalized Existing Land Use. 1971. 1"=2 miles.

Mineral Land Classifications. 1982 and 1983. 1"=1 mile.

Mining and Exploration Activity in El Dorado County. date unknown. 1"=1 mile.

Open Space Lands (Private, USFS, BLM, State and County). 1971. 1"=2 miles.

Rain and Snowfall, Annual Averages. 1971. 1"=2 miles.

Rare and Endangered Plant Species. date unknown. 1"=2 miles.

Rare, Endangered and Protected Animal Species. date unknown. 1"=2 miles.

Recreation, Existing Facilities. 1971. 1"=2 miles.

Recreation Map of the General Plan. 1971. 1"=2 miles.



## **APPENDIX C**

### **LIST OF PERSONS INTERVIEWED DURING RECONNAISSANCE PHASE**



## **APPENDIX C**

### **LIST OF PERSONS INTERVIEWED DURING RECONNAISSANCE PHASE**

Advisory Committee of the El Dorado County Fire Chiefs.

Allcot, Robert. General Manager, El Dorado Irrigation District.

Barrett, Gabby. Tahoe Regional Planning Agency.

Center, Bill. Representing Environmental Planning and Information Council (EPIC).

Chad, Scott. Director, El Dorado County Department of Transportation.

Chamberlain, Ozzie and Haynes, Warren. Representing Coalition of County Organizations (COCO).

Chinland, Nancy. Representing the Ad Hoc General Plan Committee.

Cofer, James. Manager, South Tahoe Public Utilities District.

Delfino, Edio. El Dorado County Agricultural Commissioner.

Dorr, Robert. Chairman, El Dorado County Board of Supervisors.

Edwards, Dan. Representing El Dorado County Builders Exchange.

Eisner, Bruce. California Tahoe Conservancy.

El Dorado County Recreation Providers.

Flynn, Joe. Representing El Dorado Forum.

Harris, Jeff. Supervisor, U.S. Forest Service, Tahoe Basin Management Unit.

Hayne, Jim. El Dorado County Department of Transportation, Tahoe Area.

Hintze, Vaughn. Representing Surveyors, Architects, Geologists and Engineers (SAGE).

Hubert, Ginger. El Dorado County Community Development Department, Tahoe Area.

Hutchens, Jerry, and staff. U.S. Forest Service, El Dorado National Forest.

Jamin, Terri. Director of Planning, City of South Lake Tahoe.

Lake Valley and Fallen Leaf Fire Districts.

Lowry, Ken. Superintendent of Schools, El Dorado County.

Manseur, Tony. El Dorado Hills Investors.

Martens, Tom. League to Save Lake Tahoe.

McIntosh, Paul. County Administrators Office.



Montgomery, Conrad. Planning Director, City of Placerville.

Murray, Ed. Representing the Building Industry Advisory Council.

Prince, Richard and Gau, Steven. Georgetown Divide Public Utilities District.

Reeb, Bob. El Dorado County Water Agency.

Renke, Clay. Chairman, El Dorado County Planning Commission.

Sayles, Vern. Representing El Dorado County Board of Realtors.

Sellers, Roben. El Dorado County Chamber of Commerce.

Simmons, Jim and staff. California Department of Forestry.

Sugarmann, Matt; Kranz, Bruce, and Martinez, David. California State Parks.

Whittington, Dave. El Dorado County Counsel.

Woodring, Gary. Director of El Dorado County Parks and Recreation.

**APPENDIX D**

**MAPPING AND GIS EXPERIENCE IN  
OTHER COUNTIES**

Excerpts from San Luis Obispo County  
User Needs Assessment

for

Automated Mapping/Geographic Information Systems

Steven French and Heather McMillan  
Design Institute Report GIST-01-89





## Mapping and GIS Experience in Other Counties

Eleven counties in California are currently in the process of developing automated mapping or geographic information systems. For purposes of this study, five of these counties were randomly selected and interviewed by phone to learn about their experiences in system development. Specifically, they were asked what hardware and software they are using, who uses the system, what personnel are involved in developing the system, what their experiences have been in developing a base map, whether they conducted a pilot study and how they assess the system overall. Of these counties only Riverside was developing a system that would be shared by planning, engineering and the assessor. The others were all more limited systems being developed by the respective planning department although several of the systems were using information from assessor or engineering departments.

### Imperial County

The Imperial County Planning Department is using an AutoCad system to digitize existing zoning and other planning maps. The Public Works Department may share the system after it is developed. A local utility company also has a compatible CAD system and may share information eventually. The Assessor is also interested in the system, but funding has been a problem. Initially, the Planning Department had hoped to link this system to the County's IBM 360 mainframe, but decided that the cost for on-line access was too great. Imperial County could not afford a GIS, but feels the drafting and visual overlay capabilities provided by AutoCad are sufficient for their needs.

An outside consultant was used to digitize all 65 zoning maps for the County. Existing maps were used as source documents. Three department technicians are now updating and editing those maps. The system is already useful one year after getting the equipment. This system is a basic CAD system with little analytic capability.

### Lake County

The Lake County Planning Department is developing a GIS which it will possibly share with other departments when the system is developed completely. The Planning application is to prove the system's capabilities before other departments are involved.

They are using URS GIS software on an IBM AT minicomputer and Criterion's Landtrak software. The URS system provides the classic GIS overlay capabilities, which the Landtrak system provides the point and polygon capabilities needed to analyze the point and line data associate with DIME file applications. Lake County obtained the system in 1986 and expect it will take until 1990 before the 5 planning areas of the county are digitized and development of the planning applications is complete. The department hired one employee dedicated to GIS and plan to hire more in the future.

The Assessor parcel maps, USGS maps and existing zoning maps were used as source documents for Lake County's base map. They have digitized one of five planning areas as a pilot study. Eventually they plan to have zoning, land use, geothermal and various other overlays. They have done all digitizing in-house. By doing one planning area at a time the department hopes to work the bugs out of the system before digitizing the whole county.

Their assessment is that the system is generally good. It is slower and more cumbersome than other systems, but is less expensive. They feel it compares favorably with other GIS systems in terms of capability. They technical support from Criterion and URS is quite good. The cost for the system includes \$40,000 for hardware and software.

### Marin County

The Marin County Planning is developing a GIS system to support its Advanced Planning section. The system may eventually be shared with other departments.

The system consists of 1 Compaq 386 with a digitizer, plotter and laser printer. The Landtrak system (by Criterion Corp.) is based on the DIME (Dual Independent Map Encoding) network. This system assigns address based data to points along a street network. In addition to Landtrak Marin County uses DBase III for database management operations and Auto Mirage by VenoGraphics to produce presentation-quality maps. The hardware and software were obtained in December 1986.

This system is based on the street network and includes no parcel level base map. The 90,000 parcels in Marin County are each represented as a point on the street network. The county planning areas, some special study areas, spheres of influence, urban service areas and flood plains have also been digitized into the system.

The development strategy is to build the system incrementally according to required planning applications. The system was started to support the General Plan update. Specific new applications are created as needed. System development is seen as a continuing process, although the basic maps and database are in place.

The County has spent a total of \$60,000 on the system: \$20,000 for Landtrak, technical support and a raw DIME file; \$20,000 for hardware and \$20,000 to clean up the DIME file and add missing street segments. In addition the County originally hired a consultant to evaluate GIS options and help it select a system. Developing the system has required some technical support from Criterion and local consultants familiar with system. It now has five part-time people using system plus interns and contract employees.

### Riverside County

Riverside County is developing a system that will be shared by Engineering, Planning, and the Assessor. The system may eventually be shared with outside departments and cities, but the expense of the system is a stumbling block for all involved. Rather than get outside departments involved, they are working on getting needed information required to support the three main user departments first.

The system consists of a Data General 20000 and 10000 with ESRI ARC/INFO software. There are 4 terminals in Engineering, 8 terminals, 3 digitizers and 1 electrostatic plotter in the Assessor's office and 6 terminals, 2 plotters and 2 digitizers in Planning. The minicomputer CPU's are currently at capacity so no new terminals can be added without a major hardware upgrade.

While the users are comfortable with the capabilities of the system, they characterize it as very "user-unfriendly and cumbersome". There are roughly 1200 commands in the ARC/INFO system of which the basic user needs to know 300 to use the system effectively. Riverside indicates that the user support from ESRI is quite good. They also considered Intergraph, but its polygon processing capabilities were not as strong.

A task force made up of representatives from each of the three departments was established to guide system development. Engineering is the lead agency in system development. Engineering wrote the RFP for the system and maintain the CPU for the system. There are 4 individuals involved with developing the system in the Assessor's Office, 3 1/2 in Engineering, and 3 in Planning. No Data Processing personnel are involved because the users could not afford Data Processing service charges. Those involved with the system hold weekly review meetings and monthly GIS steering committee meetings.



Riverside County is conducting a pilot study using existing Assessor parcel maps for a 48 square mile area. The 48 square mile pilot study area is almost completed including a parcel base map, approximately 60 overlays for Planning, 12 overlays for the Assessor, and 6 overlays for Engineering. They expect to start using the system for analysis of this data in November 1988 and will start digitizing new areas in January 1989. Aerial photography of the rest of the county will be required as the system expands. There are about 400,000 parcels in the county and another 500,000 parcels in the cities within the county. They expect to take 5 to 10 years for to develop a base map for the whole county.

They feel they were naive in estimating the amount of time required to get the system operational. They feel ARC/INFO is the best GIS software in terms of capability and user support, but that it is difficult to use. Over the past five years Riverside County has spent more than \$1.5 million for hardware and software. Personnel costs for the 11 GIS dedicated employees is an additional cost. The expense of flying portions of the county for base map development is another major additional expense.

#### Tulare County

Tulare County is developing two separate systems: (1) a parcel database and permit tracking system and (2) a parcel mapping system using Holguin CAD software. The systems have been in development for the past 4 years. The database system is currently running on a Hewlett-Packard 3000 with 56 terminals. The mapping system includes a Hewlett-Packard 1000 with three terminals, 2 digitizers and 2 plotters. A number of other agencies in the area are also using Hewlett-Packard systems including the City of Visalia.

Both of these systems are being developed independently by the Planning Department. The Assessor maintains a separate parcel database similar to the San Luis Obispo Property System on an IBM system, Planning copies this information and loads it on the HP-3000 daily. The Data Processing Department maintains the IBM, but the Hewlett-Packard systems are maintained entirely by the Planning and Building Department.

The Planning and Building Department maintains its own set of parcel maps (at 400' and 1000' scales). The main goal of the mapping system is to automate the drafting function. The department would eventually like to move to a GIS system in order to analyze the mapped information. The cost of GIS was too high when system configuration decisions were being made.

A base map for the eastern one-third of Tulare County is being developed by an outside consultant using aerial photogrammetry at a cost of \$150,000. This map will locate section line roads, section corners and major stream courses to 5' accuracy using State Plane Coordinate values. It will take at least two years after the consultant finishes to add parcel and right-of-way information and to begin to use the system meaningfully. Tulare County has 130,000 parcels (4,800 square miles). There are no plans to map infrastructure or environmental information in the near future. In developing the base map, existing maps were originally used, but air photos were required to establish good geodetic control after numerous inaccuracies and edge matching problems were discovered.

There are approximately 50 planners in the department. Three full time drafting persons and one half-time data entry person are working on developing the system. A "System and Procedures Analyst" manages information for the Planning Department and is in charge of the project. The department contracts out for programming functions rather than hire someone within the County.





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